A CATALOGUE

OF THE

LEPIDOPTEROUS INSECTS

IN

The Museum

01

THE HON. EAST-INDIA COMPANY.

BY

THOMAS HORSFIELD, M. & PH. D., F.R.S.,

FREDERIC MOORE,

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PREFACE.

It was my intention, as stated in the Introductory Remarks, to comprise in the first part of the Catalogue of the Lepidopterous Insects contained in the Museum of the East-India Company, the three first Tribes of this Order of Insects; but in arranging this work for publication, it became evident that our materials and the labour of preparing them for publication exceeded the original estimate of their extent: the full illustration of the species, the investigation and enumeration of the multifarious synonyms by which they are indicated by authors, together with the descriptions of a considerable number of new species, rendered a modification of our first plan advisable. I have therefore determined to limit the first part to the Papiliones and Sphinges, reserving the Bombeous to the second part.

In submitting this Catalogue to the Entomological public, it is my first duty to acknowledge the very valuable and accommodating assistance which has been afforded to myself and my assistant by the officers of the Zoological Department of the British Museum, in our frequent researches, for the purpose of accurately comparing the subjects in the Company's with those contained in the British Museum. By this means, our species have been verified with a degree of accuracy otherwise unattainable; the synonyms carefully examined, and the character and distinctness of the new species fixed with all possible accuracy.

My best thanks are also due to A. Grote, Esq., of the Company's

Bengal civil service, who has placed at my disposal a very extensive series of drawings of the transformations of Lepidoptera, from continental India; the first portion, containing the Diurna, has already reached our Museum, and Plate XII. of illustrations consists almost entirely of Mr. Grote's contributions.

I have also to acknowledge thankfully the contribution of original drawings of transformations of Eastern Lepidoptera: first, by Edgar Leopold Layard, Esq., of drawings from Ceylon: secondly, by Lady Isabella Rose Gilbert, of drawings from continental India: thirdly, by Captain Mortimer Slater, of drawings from northern India: fourthly, the Entomological Society has also afforded access to the drawings made by Mrs. Hamilton.

The general plan according to which this work will be conducted is detailed in the Introductory Remarks. The indications afforded by the metamorphoses form the basis, and the subjects will be arranged, as far as possible, according to their affinities or most natural relations. This has been attempted in the first Tribe, the metamorphoses of which are illustrated on the first seven and the twelfth Plate, to which I refer the reader: but in a local collection of limited extent such an attempt must necessarily be imperfect.

The SPHINGES, forming the second Tribe, are limited exclusively to those Insects in which the chrysalis is naked, and deposited on the surface or under the earth, the character of which is illustrated by Plates VIII., IX., X., and XI. These form, in the twelfth edition of the "Systema Nature," the first, second, and part of the third section of the genus Sphinx, as defined by Linneus. The remainder of this genus, namely, part of the third and fourth sections, consisting chiefly of the genera *Egeria* and *Zygaraa*, belong with more propriety to the Bombyces, to which they are allied both in their transformations and in the perfect insect, the chrysalis being enveloped in a silky fabric or eccoon, in the manner of the *Bombyces*.

Thus restricted, the SPHINGES are divided into five Stirpes,

PREPACE.

which, with the exception of the first Stirps, the metamorphosis of which is as yet unknown, are named from the form of the larvæ; viz., the second Stirps Elongatæ, the third Stirps Acrocophalæ, the fourth Stirps Amblocophalæ, and the fifth Stirps Ophthalmicæ. These are described in detail in pages 258-9. The special character of these divisions, exhibited in the metamorphosis, is strikingly confirmed by the perfect Insect, which, in each of these Stirpes, has a peculiarity obvious to every observer.

In conclusion, it is my duty to state that the descriptive part of this Catalogue has been performed by Mr. F. Moore, the Assistant in the Company's Museum; and the experienced entomologist will recognize the skill and accuracy of Mr. J. O. Westwood in the preparation of the Illustrations.

THOMAS HORSFIELD.

December 7th, 1857.

INTRODUCTORY REMARKS.

THE ZOOLOGICAL MUSEUM of the East-India Company consists of specimens in all departments of the Science, from the Company's Oriental possessions, contributed by public servants who have been attached as Naturalists to Missions and Deputations on behalf of the Indian Government, or by gentlemen of the civil and military services, as presents to the Honourable Court of Directors.

Collections and Contributions in the particular branch of Ento-MOLOGY, have been received in the Museum in the following chronological order:—

- 1802. Eudelin de Joinville.—A series of Insects from Ceylon, chiefly Lepidopters, presented to the Indian Government, on the transfer of Ceylon to the British Crown.
- 1813 to 1819. Thomas Horsfield, M.D.—The Entomological Collections made in Java, during the possession of that island by Britain; consisting of a large series of Insects in all Orders, accompanied by Drawings of Lepidopterous Insects in all the stages of their existence.
- 1828. George Finlayson.—Insects collected during the Mission of John Crawford, Esq., to Siam and Hué, the capital of Cochin-China.
- 1829. Madras Government.—Collections made by the Company's Naturalist at Fort St. George.
- 1831. Colonel W. H. Sykes.—The Collections—consisting of a large series of Insects in all Orders, besides Birds, Mammalia, &c.—made during the Statistical Survey of the Dukhun.
- 1840. Major R. B. Pomberton.—Insects collected during his Mission to Bootan in 1837-38.

- 1841. The Asiatic Society of Bengal.—A series of Insects in all Orders.
 - John McClelland, Esq. Specimens from Assam.
- 1842. J. T. Pearson, Esq.—Specimens from Darjeeling, in all Orders.

 The Bengal Government.—The Entomological Collection made
 in Chusan by Theodore Cantor, M.D., acting as Naturalist
 during the Chinese Expedition.
- 1843. The Bombay Government.—The Entomological Collections made during the mission of Sir W. C. Harris to Abyssinia.
- 1844. The Asiatic Society of Bengal.—Insects in all Orders.
- 1840 to 1856. Ezra T. Downes, Esq., Deputy Assay-master, Bombay Mint.—Large Collections of Insects in all Orders (accompanied by Notes), received by several despatches.
- 1849. Colonel F. Buckley.—A large Collection of Insects in all Orders, from the Himalayas, &c.
 - Brigadier-General J. B. Hearsey.—A small Series of Lepidoptera, received through J. O. Westwood, Esq.
- 1850. Colonel W. H. Sykes.—A Series of Insects preserved in spirit. Captain Richard Strachey.—A Series of Insects from Ladakh.
- 1853. B. H. Hodgson, Esq.—A Series of Insects from the central regions of Nepal.
- 1854. Theodore Cantor, M.D.—A Collection of Insects in all Orders, from Penang.
- 1856. J. C. Bowring, Esq.—A Series of Insects from North China. Messrs. H. & R. Schlagintweit.—An extensive Collection of Insects in all Orders, from Darjeeling, &c.
 - The Bengal Government.—The Collection of Insects transmitted for exhibition at the Exposition Universelle at Paris in 1855.

In the Catalogue which is now offered to the public under the auspices of the Honourable Court of Directors of the East-India Company, it is intended to describe the Lepidopterous Insects contained in the Company's Museum. The Materials for this Work have been enumerated above in the chronological order of their contribution.

When I commenced a Systematic arrangement of the earlier Collections in 1820, soon after my arrival in England, they consisted, with the exception of a small number of specimens from Ceylon, exclusively of the Lepidopterous Insects from Java, which

were collected by me, and deposited in the Museum between the years 1813 and 1819. Since that period, collections of various extent have been contributed from the continental possessions of the Company in the East, and from China.

In the year 1820, the Entomological Cabinet was provisionally arranged according to the plan of Dr. Leach, as given in Samoelle's Entomologists' useful Compendium. My attention having been devoted to other branches of Zoology, chiefly Mammalia and Birds, the Insects remained in the state of their first arrangement until the year 1825, when William Sharp Macleay, Esq., commenced, in the "Annulosa Javanica," a description of the Colcopterous Insects in the Museum.

Some time after this, an attempt was made to give a description of the Lepidopterous Insects in a work entitled, "Descriptive Catalogue of the Lepidopterous Insects in the Company's Museum." This work having been undertaken on a plan which could not insure public support, was discontinued after the publication of the two first numbers, in 1828 and 1829.

In undertaking that work, the systematic arrangement to be adopted was the first consideration; and accordingly, the works of Linnæus, Latreille, Fabricius, Duméril, and other systematic Entomologists, were carefully studied, in order to direct me to the most natural method of arranging my Collection.

While thus engaged, my attention was almost accidentally called to a comparatively obscure work, rarely consulted by English Entomologists (except as an Index of Species described), which was published in Germany towards the end of the last century, entitled, "Systematisches Verzeichniss der Schmetterlinge der Wienergegend, heraus-gegeben von einigen Lehrern am K. K.-There-SIANUM;" which last word I found designated Messrs. Denis and Schieffermüller, two distinguished officers of the court of Vienna, known in Germany from their charge in the Imperial Academy, by the name of "THERESIANER." In this work I discovered, to my great delight, an attempt to unite Lepidopterous Insects into groups, founded on the various stages of their existence, from the Caterpillar to the perfect Insect, or on their transformations. The maxim of the authors is, " Ein Aug auf den Schmetterling, das andere Aug die Raupe" (one eye to the Butterfly, another to the Caterpillar). This maxim gave a new direction to my inquiries; it superseded

any further examination of the systems above mentioned, so far as relates to system and classification, these works being founded almost exclusively on a single character, and accordingly artificial, while it greatly confirmed the views which had directed my researches in Java, as will appear in the sequel.

Although the Wiener Verzeichniss has been called a system, it can only be considered as an accumulation of materials of the metamorphoses of European Lepidoptera, to serve for comparison by Entomologists in other countries. The authors have not attempted a new Classification of the whole Order of Lepidoptera on their own principles. In the large divisions they adopt the Genera of Linnaus, although they have transposed the Genera of that author, commencing with Sphinx Phalæna, and terminating with Papilio; the cause of this transposition is not explained. Mr. Westwood, in his "Introduction to the Modern Classification of Insects," gives a summary of the subdivisions and families into which the Wiener Verzeichniss is divided, with the remark, that almost every one of the divisions constitutes a modern genus. This work, although little known or regarded in England and France, is held in high estimation in Germany, where, at the period of its publication, it formed an epoch among cultivators of Entomology. Not many years after its first appearance, a new edition was required, which was undertaken on a somewhat reduced scale by the celebrated Illiger, who describes it as one of the most acute and instructive works on Entomology ever published; indeed, in its literary and philosophical character it may be ranked with the most perfect works on Natural Science extant at the time of its publication. It takes a most comprehensive view of Entomology in all its departments; it notices in detail all the authors and systems published at its appearance, near the end of the last century; and the research and learning displayed in its compilation are highly creditable to the authors. After stating the design of their work, the authors describe, in a manner perhaps more comprehensive and complete than is done in any other entomological treatise, the history and peculiarities of Lepidopterous Insects, from the egg to the Butterfly, interspersed with many original remarks, founded on their own observation. The description of the families and of the individual larvse and chrysalides are given with the greatest minuteness. series of notes and quotations is carried through the whole work, furnishing the student with an abstract of all that has been recorded by the most eminent writers at the period above mentioned. The sixth and seventh sections contain many ingenious details and suggestions respecting the relative number of Lepidopterous Insects and Plants found in a given district or country; and the authors endeavour to show that the number of both Butterflies and Plants will be found nearly equal in the Fauna and Flora of the countries that have been carefully examined. In examining the various systems extant at their time, they discuss the advantages and defects of each, with a view to prove that further researches were required to supply the vacancies remaining, in the attempt to form a natural system of arrangement, of which they had a more correct notion than most other naturalists of their day.

These sections also are invaluable in directing the pursuits of young Entomologists to the importance of collecting Lepidoptera in the various stages of their existence, both with the view to obtain perfect specimens and a complete history of the separate species. The style is colloquial, animated, and classical, and illustrated with numerous appropriate quotations in Latin, French, and English. An acquaintance with this work during my abode in Java would have enabled and directed me to carry on my researches in Entomology to a greater extent than I have accomplished.

In the systematic structure of this Catalogue, I shall be guided, so far as my materials afford the means, by the character in which the subjects manifest themselves in their transformations from the first state of their existence to their perfect development, or, according to the maxim of the authors of the Wiener Verzeichniss, from the larva to the imago; endeavouring in all cases to discover the most natural arrangement in which they can be disposed.

It is obvious that a complete arrangement of the whole Order of Lepidopterous Insects on this principle cannot be attempted at the present period, although considerable materials have already been contributed towards this object from many parts of the world; among these, the most important are contained in the following works:—

Hübner (Jacob).—Geschichte Europæische Schmetterlinge, quammelt van J. H.

Abbott and Smith.—The History of the rarer Lepidopterous Insects of Georgia.

Cramer (Pierre).—Papillons Exotiques, etc. The Supplemental Volume by Stoll.

Merian (Madame). - Métamorphoses Insect. Surinamens.

Harris.-The Aurelian.

Boisdural and Léconte.—Hist. Générale et Iconogr. Lépidopt. et Chenilles de l'Amér. Sept.

Poey.—Centurie de Lépidopt. de l'Isle de Cuba.

Sepp.-Hist. Nat. de Papillons de Surinam.

But many extensive regions are as yet altogether unexplored, and a complete System of Lepidopterous Insects founded on their metamorphoses is reserved for some future Entomologist provided with more ample materials than have as yet been brought together: my only object in the present work is to contribute the result of my labours in the Eastern Islands.

Deeply impressed with the importance and necessity of an accurate knowledge of Lepidoptera in all stages of their existence, I devoted, during several successive seasons, all the means at my command to the investigation of Javanese Lepidoptera; and it may be not out of place here to give a brief extract from the Descriptive Catalogue above mentioned, of the method pursued by me. "I "lived at this time at Surakarta, a province in the interior, be-"longing to the native princes. I was amply provided with every "convenience and facility for preserving what I had collected. "Several draughtsmen had likewise been trained, under my super-"intendence, for botanical delineations; and the skill they acquired "in those, soon fitted them for the annulose department. I was, "therefore, enabled to enter upon a history of the Metamorphoses "of Javanese Lepidoptera, a design which had long engaged my "anxious solicitude. Although I did not, at this period, so fully "conceive the paramount necessity of an acquaintance with the "Metamorphoses of Lepidoptera, towards the establishment of a "natural arrangement, as I have been led to do in later periods. "yet I was so strongly impressed with its essential importance in "attempting a complete history of Insects, that I commenced with "a fixed determination to prosecute the inquiry with unremitted "industry and zeal, to collect all the larvee of Lepidopterous Insects "which I might possibly obtain, and to trace them through the

"various periods of their existence. With this view, I fitted up a "large apartment adjoining my residence with breeding-cages and "receptacles for chrysalides. At the commencement of the rainy "season, the period when, in tropical climates, the foliage of "vegetables is renewed, I daily went out in search of caterpillars, "accompanied by the most intelligent of my native assistants. The "caterpillars thus collected were placed in separate breeding-cages, "and several of the assistants were instructed to provide daily, at "regular periods, the food the individuals required, and to secure "the cleanliness of the cages. As soon as the caterpillars were "approaching to perfection, a drawing was made of them. "same individual which had been submitted to the draughtsman "was then separately confined, watched with the most diligent "care, and as soon as it had passed into the state of a chrysalis, "again made the object of the pencil. A determinate number was "carefully attached to the drawing and to the cage of the chrysalis. "As soon as the perfect insect had appeared and expanded its "wings, it was secured, set, and numbered, in accordance with the "larva and chrysalis. During this period, every possible solicitude "was employed to prevent mistakes. The original series, consisting "of the perfect insects and the chrysalides obtained by this mode "of proceeding, and numbered in accordance with the collection of "drawings made at the same time, is now deposited in the Museum "of the Honourable East-India Company, and affords an authentic document of the accuracy of the details regarding the metamor-"phoses of Javanese Lepidoptera, which will be offered in the "course of this work."

By the method thus described, I obtained the complete history of the transformations of nearly 200 species of Javanese Lepidoptera. The collection varies considerably in the principal divisions of this Order. In the first great division or Tribe, comprising the Diurnal Butterflies, or Papiliones, I have been most successful, and in this tribe my materials are sufficiently extensive to illustrate the minor Groups or Stirpes into which it has been subdivided; and in these are included also a large proportion of the Genera found in the tropical countries of the East.

Having above detailed the advantages I derived from an acquaintance with the Wiener Verzeichniss, so far as relates to the smaller groups of Lepidoptera, and the association of them into

Natural Genera on the principle employed by Mcssrs. Denis and Schieffermüller, I have now to refer to another work which opened a new view to my study of Zoology generally, and especially of Entomology,—the "Horse Entomologics" of William Sharp Macleay, Esq.; and I consider it a fortunate coincidence that this work made its appearance about the period of my arrival in England, and that my attention was early directed to it,—the first part having been published in 1819, the second in 1821,—while I was engaged on the provisional arrangement of the Lepidopterous Insects in the Company's Museum.

In this work, Mr. Macleay has sketched a plan, according to which the whole animal kingdom forms one natural group. In explanation of his system, he brings into one view almost all that is recorded by Zoological authors, both ancient and modern, in order to illustrate his theory. It is, in fact, an epitome of Zoology, and the study of it will greatly benefit the Zoologist and the Entomologist, whether he adopts or rejects his views. It is the production of an original mind, and may be justly considered as one of the most important contributions of late years to the Philosophy of Natural History.

Without attempting an analysis of the work, I shall briefly state those points which have a reference to this Catalogue.

First. The sentiment which pervades this work, impressing in the strongest manner on the student and the cultivator of Natural History, the paramount importance of the maxim of Linnæus: METHODUS NATURALIS EST ULTIMUS PINIS BOTANICES.

Secondly. The clearness with which relations of Affinity and Analogy observable in different groups of subjects of Natural History, both animal and vegetable, are propounded and explained. This law was discovered by Mr. Macleay in 1819, in studying Lamellicorn Insects; and was subsequently more fully discussed and elucidated in an Essay contained in the fourteenth volume of the Transactions of the Linnman Society,* chiefly with reference to a similar discovery made almost simultaneously by Elias Fries; Griphiswaldim, 1821, but without any communication or inter-

^{*} Entitled, "Remarks on the Identity of certain General Laws which have been lately observed to regulate the Natural Distribution of Insects and Fungi." By William Sharp Macleay, Esq.

change of opinions of the respective authors, in a group of the lower vegetables, *Fungi*, and which is made public in a work entitled "Systema Mycologicum, sistens Fungorum Ordines, Genera, et Species."*

Thirdly. The exposition of the law, that the series of affinities in groups of the animal kingdom is progressive, and that it returns into itself; and thus the groups form circles.

Fourthly. That the primary groups of those departments of the animal kingdom which have hitherto been investigated have been ascertained to be limited to five.

The laws enumerated in the third and fourth points have been discovered to prevail in Mammalia by Dr. J. E. Gray, detailed in the Annals of Philosophy, New Series, No. LIX., for November, 1823; in Birds, by N. A. Vigors, Esq., and have been detailed with great clearness in an admirable Essay contained in the fourteenth volume of the Transactions of the Linnman Society, entitled, "Observations on the Natural Affinities that connect the Orders and Families of Birds;" and by Dr. J. J. Kaup, of Darmstadt, in an excellent monograph of Falconidee, the subdivisions of which agree with those of N. A. Vigors, Esq., independent of any mutual communication of the respective authors; in Crustacea, by Dr. De Haan, of Leyden, who, in the Introduction of his work has the following passage:-" Secuti sumus methodum circulorum quinariam ab viro ornato Macleay in Horis Entomologicis expositum, qua quippe via totum naturæ schema aptius exponi et affinitates facilius indicari nobis visæ sunt."†--Pramissa IX.

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^{*} Referring to Mr. Macleay's paper, contained in the Transactions of the Linnssan Society, here cited, it may be proper in this place to give the substance of the proposition of Fries in his own words:—"Affinia igitur sunt quas in cadem serie sequentur, et in se invicem transire videntur. Hac in ulteriaribus congruunt, sed in citerioribus rationibus different. Analoga autem dicimus ques in diversis seriebus locis parallelis posita sunt, et sibi invicem correspondent."

It is remarkable, that a similar law was noticed by Agardh, which in his Aphorismi Botanici is described in the following words:—"Analogia quadam et similitude in diversis seriebus vegetabilium interdum cernatur, quasi progressa caset natura ad perfectionem per cosdem gradus sed diversá viá."

⁺ In the second chapter, De ratione, qua quinque sectiones Crustaceorum inter se ligantur, he has the following remarks:—"Plures Botanici et Zoologi in eo conveniunt et vegetabilia et animalia non tantum plures series distinctas

Fifthly. That each group in a circle is analogically represented by the corresponding group in other circles.

Sixthly. The arrangement which Mr. Macleay has made of a class of annulose animals, designated Ametabola in his System; and its application in the present work.*

Ametabola.—This Class, when first defined and introduced into the system by Dr. Leach, consisted of two divisions only,—Thysanura and Anoplura; to these Mr. Macleay has added the two divisions of Myriapoda, namely Chilopoda and Chilognatha, and also Vermes, as defined by him, Horæ Entom. p. 286. The Class, therefore, consists of the following Orders:—Vermes, Anoplura, Thysanura, Chilopoda, and Chilognatha.

The researches and inquiries which led Mr. Macleay to this arrangement, are detailed in the same work, in pp. 286-7, &c. They are founded on a very careful study of the character of these animals, with reference especially to recent accurate analyses and descriptions of Messrs. Savigny, Latreille, and Lamarck, and they afford a favourable example of the method pursued by Mr. Macleay in his inquiries.

I have now, very briefly, to state the application which Mr. Macleay has made of the several divisions of the class Ametabola, in an analogical point of view, to the larvæ of Coleopterous Insects.

In the seventh chapter, treating of the tribes of Mandibulata, he gives an explanation, of which the following is the substance.—
"When reviewing the Colcoptera with a view to a natural division,
I first threw the whole into those great natural groups which occurred to my sight, and, prosecuting my inquiries, at length, when

formare, que analogis jungantur, sed invicem connexa esse, quasi annulum annulo. Naturam non facere saltum, est adagium Linnæanum; multum autem abest, huncce nexum in omnibus partibus esse indicatum. Illud vero vinculum extricare videtur scopus, in quem omnes perquisitiones in Historia Naturali debeant attendere, ut inde patent in creatis et consensus et ordo et sapientia, si talis pres humanis excellentia humanis verbis exprimi possit. In hoc propositum Cl. Macleay Hôrus Entomologicus conscripsit; eximio hocce in opere invenimus filum Ariadneum, que ulterius persequendo, viam illo in labyrintho invenire possumus. Formas nempe in circulis in se redeuntibus disponere conatus est; circularis illa dispositio nobis videtur naturae maxime conveniens."

* Mr. Macleay's four other primary divisions of the Annulosa being the Crustaces, Arachnida, Mandibulated, and Hanstellated insects.

thinking of their larvæ, I discovered that each of my groups, as far as my knowledge of them went, had a peculiar character,"—which he then briefly describes on p. 422.

Referring to the detailed description of the larvæ of Coleopterous Insects which he has detected, and arranged in five groups, it is sufficient for my present purpose to state, that the first group, examples of which are Carabus and Dytiscus, are represented analogically by the Chilopodiform Ametabola; the second type, of which Scarabæus is an example, is represented analogically by the Chilognathiform Ametabola. The third type, of which Curculio and Cerambyx are examples, is represented analogically by the Vermiform Ametabola. The fourth type, of which Coccinella and Chrysomela are examples, is represented analogically by the Anopluriform Ametabola; and the fifth type, an example of which is Meloe, is represented by the Thysanuriform Ametabola.*

To guard against any misapprehension of the characters of the relations here pointed out, Mr. Macleay gives the following caution (see H. E. p. 423): "The distinction, however, between affinity and analogy, is perhaps nowhere in Entomology more necessary to be attended to than here; since, in terming larva Chilognathiformes or Chilopodiformes, it is not meant that they are Scolopendra or Juli, or even near to them in affinity, but only that they are so constructed that certain analogical circumstances attending them strongly remind us of these Ametabola."

Considering, therefore, the determination to which Mr. Macleay has arrived regarding the primary groups of Colcoptera, and their analogical relations with certain divisions of Ametabola, according to which the whole Order resolves itself into five natural divisions, I submitted the entire series of illustrations of the Metamorphoses of Indian Lepidoptera contained in the Company's Museum to a rigid examination; reserving the indications afforded by this examination, so far as regards the whole Order, to a future stage of this Catalogue; it is sufficient for my present purpose to state, that in the first Tribe of this Order, the Diurnal Lepidoptera, or Papiliones, I discovered five decided types of form, each of which

^{*} To illustrate the five types of form observed in the first Tribe of Lepidoptera, the Papiliones, and the corresponding analogies with the Ametabola, I have prepared the accompanying plate exhibiting the larva and the analogous Ametabola.

Thirdly. A cylindrical larva, strikingly characterized by its terrific or threatening aspect, being covered with sharp, rigid, erect processes, often of great length, but diversified in the different subdivisions, arranged in regular longitudinal lines along the body of the larva, and beset with numerous diverging spines disposed in a verticillate manner. The attitude of the pupa is the reverse of that of the typical forms in the two former divisions: it is attached by the abdomen, while the head is directed perpendicularly downwards; in form it is greatly diversified. Representing the Chilopediform or Scolopendriform Ametabola.

Fourthly. A lengthened cylindrical striated larea, somewhat smaller at each end, apparently of an agile habit, naked, or covered with a slight down, having a head of moderate size, armed with two erect spines, or provided with a movable shield, often of great

size, and beset with erect hornlike processes: but the chief characteristic of this division consists in two very strongly marked lengthened filiform or spinous appendages at the extremity of the abdomen. The pupa is attached by the tail and suspended perpendicularly, as in the last division; its head is in general terminated by two points of various form and length. Representing the Thysanuriform Ametabola.

Fifthly. A cylindrical larva, nearly naked, with a very large head, often globular, and attached to the body by a long neck; characteristically distinguished from the other subdivisions by its bluntness and abrupt termination behind; the pupa being covered by a convoluted leaf. Representing the Anopluriform Ametabola.

These separate groups, agreeably to the plan of Mr. Macleay, in the "Annulosa Javanica," will be denominated stirpes.

Tabular Review of the Larow and their Analogies above enumerated.

1st Division, named according to the form of the larva

2nd Ditto Juliform or Chilognathiform.

3rd Ditto Scolopendriform or Chilopodiform.

4th Ditto Thysanuriform. 5th Ditto Anopluriform.

To answer the question which may arise, whether, in applying to one Tribe of Lepidoptera—the Papiliones—the same principle which Mr. Macleay has applied to the whole Order of Coleoptera. I have not departed from his scheme? I offer the following considerations: - Mr. Macleay has divided the whole Animal Kingdom into quinary groups, which are again subdivided into groups of consecutively descending value: thus, the Animal Kingdom is divided in descending order into Sub-kingdom, Class, Order, Tribe, and Stirps. This arrangement is fully exemplified in the Diagram of the whole Animal Kingdom, on page 318 of the "Horse Entomologicse," and in that of the sub-kingdom the "Annulosa," on page 390 of the same work; to which I refer the reader. same law of groups of consecutively minor value has been observed to prevail in Birds by N. A. Vigors, Esq., and in Crustacea by Dr. De Haan, of Leyden, who thus expresses himself :-- " Methodum quinariam, cujus in hac invertebratorum classi specimen Entomologorum judicio submittimus, in aliis usque ad familias, in aliis

usque ad genera persecuti sumus. Ita, secundum opus laudatum, Animalia in quinque subregna; quinque classes dividuntur. Porro, secundum nostras observationes, Crustacea continent quinque Ordines, quinque Tribus, quinque Familias, quinque Genera."

In the foregoing introductory remarks, I have endeavoured to detail the principles which will direct me in the compilation of this The indications afforded by the several individuals described in all stages of their existence, will be carefully studied and applied. I have acknowledged the advantage derived from the examination of the "Hore Entomologice" of Mr. Macleay, and especially from his remark, that "considerations founded on the metamorphoses must ultimately produce the most natural plan of entomological arrangement." But I desire that it may be distinctly understood, that it is not my purpose to give an illustration of his particular system; my object being to contribute a fragment towards a future enterprise of a more qualified entomologist. a collection from a territory of limited geographical extent, large chasms remain to be supplied from more extensive localities. the construction of my groups, I shall endeavour to discover the prominent forms, and to arrange them according to their affinities: and where their analogies to the Ametabola are evident, I shall point them out; but I shall not attempt to form them strictly on the model given by Mr. Macleay, or to pursue their division into typical and aberrant forms.

My reference to the works of Mr. Vigors on Birds, and to Dr. De Haan on Crustacea, is to afford a confirmation of Mr. Macleay's views, but not as an indication of my intention to pursue the subject in this Catalogue, to the same extent to which they have pursued it. The most natural division of the order of Lepidoptera, which may result from my examination, is reserved for a future stage of this work; in the first part I propose to describe the Papiliones, Sphinges, and Bombyces.

THOMAS HORSFIELD.

CATALOGUE

OF

LEPIDOPTEROUS INSECTS.

SYSTEMATIC LIST

OF THE

GENERA AND SPECIES

OF

LEPIDOPTEROUS INSECTS

CONTAINED IN THE

MUSEUM OF THE EAST-INDIA COMPANY.

Class INSECTA.	L. Cnejus, Fabr. Sp p. 22
	— Damoetes, Fabr. Sp 23
Order LEPIDOPTERA.	- Kandarpa, Horsf 23
Mail T DADITIONES	- Boëtica, Linn. Sp 23
Tribe I. PAPILIONES.	— Pavana, <i>Horsf</i> 24
Stinna I	— Elpis, Godart Sp 24
Stirps I.,	— Celeno, Cramer Sp 24
with VERMIFORM Larvæ.	— Alexis, Stoll Sp 25
0 16 17.1	Plinius, Fabr. Sp 25
Genus Miletus, Hübner.	Theophrastus, Fabr. Sp. 25
M. Symethus, Cramer Sp. p. 18	— Rosimon, Fabr. Sp 26
- Boisduvali, Moore 19	— Malaya, Horsf 26
- Horsfieldi, Moore 19	- Roxus, Godart Sp 26
	- Pseudoroxus, Doubleday 27
Genus Pithecops, Horsfield.	- Nyseus, Guérin Sp 27
P. Hylax, Fabr. Sp 19	Genus Chrysophanus, Hübn.
~ -	C. Phlæas, Linn. Sp 27
Genus Polyommatus, Latr.	- Pavana, Kollar Sp 28
P. Akasa, Horef 20	2 de la
— Puspa, Horsf 20	Genus Ilenda, Doubleday.
- Laius, Cramer Sp. 21	I. Sena, Kollar, Sp 28
	- Tamu, Kollar Sp 28
Genus Lycena, Fabricius.	- Androcles, Boisd. Sp 29
L. Pluto, Fabr. Sp 21	- Brahma, Moore 29
— Amyntas, Fabr. Sp 22	- Epicles, Godart Sp 29
- Aratus, Cramer Sp 22	
- Parrhasius, Fabr. Sp 22	Genus Thecla, Fabricius.
- Pandava, Horaf 22	T. Onyx, Boisd 30
VOL. I.	a
7 N. A	1.5

SYSTEMATIC LIST

Genus Dipsas, Doubleday.		M. Acte, Doubleday p.	47
D. Syla, Kollar Sp p. 3	30	- Tharis, Hübner Sp	47
	31	- Lapithis, Boisd	48
	31	- Lisias, Fabr. Sp	48
	32	- Triopas, Cramer Sp	49
	32	— Etolus, Fabr. Sp	49
	33	— Amyntor, Herbst Sp	49
	33	— Erylus, Godart	50
	37	- Jalindra, Horsf. Sp	50
, , ,	37	— Nedymond, Cramer Sp	50
, , , , ,	37	— Chitra, Horsf. Sp	51
	37	- Ravindra, Horef	51
vacana, 22010j. np	٠. ا	- Sugriva, Horsf	51
Genus Aphnæus, Hübner.	.	Genus Loxura, Horsfield	•
	37	L. Atymnus, Cramer Sp	51
	38	- Surya, Moore	52
	38	- Pita, Horsf	52
- Syama, Horef. Sp	38		
Genus Amblypodia, Horsf	:	Genus Anops, Boisduval	
		A. Thetys, Drury Sp	52
A. Narada, Horsf	39	— insularis, Horsf. Sp	53
- Vivarna, Horsf	39	Cinyra, Cramer Sp	53
— Apidanus, Cramer Sp	39	- Bulis, Boisd	53
— Centaurus, Fabr. Sp	40	- Santana, Moore	54
- Pseudo-Centaurus, Doubl.	40		
— Silhetensis, Boisd. Sp	40 40	Stirps II.,	
— Helus, Cramer Sp — Camdeo, Doubleday	41	with CHILOGNATHIFOI	R.M
- Eumolphus, Cramer Sp.	41	1	
- Rama, Kollar Sp	42	or JULIFORM Larvæ.	
- Perimuta, Boisd	42	Α.	
- Epimuta, Boisd	42		
- Quercetorum, Boisd	42	Genus Callidryas, Boise	1.
- Querceti, Boisd.	43	C. Pyranthe, Linn. Sp	56
- Dodonea, Boild.	43	- Philippina, Cramer Sp	56
- Ganesa, Moore	44	- Alcmeone, Cramer Sp	56
- Timoleon, Stoll Sp	4-1	- Hilaria, Cramer Sp	57
- Rochana, Horsf	44	- Seylla, Linn. Sp	5 8
- Vidura, Horsf	45		,
- Longinus, Fabr. Sp	45	Genus Gonepteryx, Lead	n.
- Pseudolonginus, Doubl.	45	G. Nipalensis, Doubleday	59
- Hypatada, Boied	45		,
- Nissa, Kollar Sp	46	Genus Dercas, Boisduva	u.
- Deva, Moore	46	D. Verhuelli, Van der Hoeven	
— Jangala, Horef	46	Sp	59
Genus Myrina, Godart.		Genus Hebomota, Hübne	r.
M. Jafra, Godart	47	H. Glaucippe, Linn. Sp	60

OF THE GENERA AND SPECIES.

Genus Eronia, Hübner.	I	P. Mesentina, Oramer Sp. p.	72
E. Valeria, Cramer Sp p. 6	:ı -	- Libythea, Fabr. Sp	73
- Avatar, Moore 6		- Pandione, Hübner Sp	73
22.00.00	_	- Paulina, Cramer Sp	73
Genus Colias, Fabricius.		, Moore	73
C. Edusa, Fabr. Sp 6	2 -	- Indra, Moore	74
	-	- Nipalensis, G. R. Gray	75
		- Gliciria, Cramer Sp	75
2101010, 210010,	-	- Daplidice, Linn. Sp	75 75
Genus Terias, Swainson.		- Remba, Moore	75 76
T. Hecabe, Linn. Sp 6		— Nama, Doubleday — Coronis, Cramer Sp	76
		— Judith, Fabr. Sp	77
		Lea, Doubleday	77
		- Thestylis, Doubleday	78
		- Seta, Moore	78
	~	- Belladonna, Fabr. Sp	78
	~~	- Sanaca, Moore	79
		- Crithoë, Boisd	79
		- Egialea, Cramer Sp	79
Genus Thestias, Boisduval.		- Pasithoë, Linn. Sp	79
T. Ænippe, Cramer Sp 6		- Thisbe, Oramer Sp	80
	3G -	- Eucharis, Drury Sp	80
		- Hyparete, Linn. Sp	80
		- Hierte, Hübner Sp	81
v oznia, o ottav zpr m		- Agostina, Hewitson	81
Genus Idmais, Boisduval.		— Descombesi, Boisd	81
		- Belisama, Oramer Sp	82
		- Autothisbe, Hübner Sp.	82
77 6 0	38 -	- Coronea, Cramer Sp	82
		- Vishnu, Moore	88
- I adota, Ottoler Sp 0	, ,,		
Genus Callosune, Doubleday	y.	Genus Apobia, Hübner.	
C. Eucharis, Fabr. Sp 0	38	A. Agathon, G. R. Gray	88
		- Soracta, Boisd	88
- Etrida, Boisd. Sp 6	39	,	
		В.	
Genus Pontia, Fabricius.		Commanda Inter	
P. Nina, Fabr 6	39	Genus Parnassius, Latr.	•
Genus Pieris, Schrank.]	P. Hardwicki, G. R. Gray	84
Th an	70	Genus Leptociecus, Swain	u.
	71 .	L. Curius, Fabr. Sp	85
	71 ′	Meges, Zinken-Sommer	85
- Hippo, Cramer Sp 7	71	Dieges, Zimmon-Kommer	30
	72	Genus Teinopalpus, Hope	•
- Egn, Boisd 7	72		•
- Neombo, Boisd 7	72 '	F. imperialis, Hope	86

SYSTEMATIC LIST

Genus Ornithoptera, Boisd.	P. Gyas, Westwood p. 110
O. Richmondia, G. R. Gray, p. 86	- Payeni, Boied 110
- Darsius, G. R. Gray 87	- Xuthus, Linn 111
- Pompeus, Cramer Sp 87	— Machaon, <i>Linn</i> 111
- Rhadamanthus, Boisd 88	— Cloanthus, Westwood 112
	— Sarpedon, Linn 113
- Amphrisius, Cramer Sp. 88	- Eurypylus, Linn 113
Genus Papilio, Linnæus.	- Bathycles, Zinken-Som. 114
·	- Agamemnon, Linn 114
P. Nox, Swainson 89	— Nomius, Esper 115
— Astina, Horaf 89	- Anticrates, Doubleday 115
- Macareus, Godart 90	- Antiphates, Cramer 116
- Megarus, Westwood 90	- Agetes, Westwood 116
- Xenocles, Doubleday 90	- Glycerion, G. R. Gray 117
- Delesserti, Guérin 91	
- Agestor, G. R. Gray 91	Stirps III.,
— dissimilis, Linn 91	
- Castor, Westwood 93	with CHILOPODIFORM
— Hector, Linn 93	or SCOLOPENDRIFORM
- Diphilus, Esper 94	Larvæ.
— Antiphus, Fabr. 94 — Coon. Fabr. 95	
,	Genus Danais, Latreille.
	D. Limniacre, Cramer Sp 121
- Philoxenus, G. R. Gray 96 - Dasarada, Moore 96	- Melissa, Cramer Sp 121
- Ravana, Moore 96	- similis, Linn. Sp 122
- Minereus, G. R. Gray 97	- Grammica, Boisd 122
- Janaka, Moore 97	- Aglea, Cramer Sp 122
- Varuna, White 98	Juventa, Cramer Sp 122
- Rhetenor, Westwood 98	- Cleona, Cramer Sp 123
- Protenor, Cramer 98	- Melaneus, Cramer Sp 123
— Memnon, Linn 99	— Tytia, G. R. Gray 123
- Polymnestor, Cramer 101	- Ablata, Zinken-Som. Sp. 124
- Iswara, White 101	- Philene, Cramer Sp 124
- Helenus, Linn. 101	- Plexippus, Linn. Sp 124
- Chaon, Westwood 102	- Melanippus, Cramer Sp. 125
- Romulus, Cramer 102	- Lotis, Cramer Sp 125
- Polytes, Linn 103	- Chrysippus, Linn. Sp 126
— Pammon, Linn 104	Genus Euplæa, Fabricius.
— Demolion, Cramer 105	
- Erithonius, Cramer 105	E. Rhadamanthus, Fabr 126
- Arjuna, Horsf 107	— Mitra, Moore 127
- Paris, Linn 107	— Elusine, Cramer Sp 127
- Ganesa, Doubleday 107	— Mazares, Doubleday 127 — Melina, Godart Sp 128
- Arcturus, Westwood 108	
- Krishna, Moore 108 - Polyctor, Boied 109	— Hübneri (Boisd.), Moore 128 — Crameri (Boisd.), Moore 129
	- Eunice, Godart Sp 129
- Crino, Fabr. 109 - Peranthus, Fabr. 109	- Klugi (Boisd.), Moore 130
- Bianor, Cramer 110	- Prothoë, Godart Sp 130
ASSESSOR OF COMMENT ILLU	

OF THE GENERA AND SPECIES.

E. superba, Herbst Sp p. 131	Genus Precis, Hübner.
— Alcathoë, Godart Sp 131 — Core, Cramer Sp 131 — Deione, Westwood 132 — Ochsenheimeri (Boisd.), Moore 132	P. Ida, Cramer Sp. p. 142 — Iphita, Cramer Sp. 143 — Hara, Moore 143 — Polynice, Cramer Sp. 144
— Midamus, Linn. Sp 133	Genus Ergolis, Boisduval.
Genus Ideopsis, Horsfield. I. Gaura, Horsf 134	E. Ariadne, Linn. Sp 144 — Coryta, Cramer Sp 144
— Daos, Boisd. Sp 134	Genus Cynthia, Fabricius.
Genus Hestia, Hübner.	C. Arsinoë, Cramer Sp 145
H. Lynceus, Drury Sp 134	Genus Amnosia, Boisduval.
— Belia, Westwood 135 — Jasonia, Westwood 135	A. decora, Boisd 146
— Jasonia, Westwood 135 — Leuconoë, Erichson 135	Genus Cyrestis, Boisduval.
Genus Telchinia, Hübner. T. Violæ, Fabr. Sp 135	 C. lutea, Zinken-Sommer 146 Thyodamas, Boisd 146 Periander, Fabr. Sp 147 Risa, Doubleday 147
Genus Pareba, Doubleday.	— Risa, Doubleday 147 — Rahria, Westwood 147
P. Vesta, Fabr. Sp 136	Genus Parthenos, Hübner.
Genus Vanessa, Fabricius.	P. Sylvia, Cramer Sp 147
V. Antiopa, Linn. Sp 136 — Xanthomelas, Denia et Schiff:	— Gambrisius, Fubr. Sp 148 Genus Рвотной, Hübner.
- Cashmirensis, Kollar 137	P. Francki, Godart 148
Charonia, Drury Sp 137	Genus Terinos, Boisduval.
Genus Grapta, Kirby.	T. Clarissa, Boisd 149
G. C. aureum, Linn. Sp 138	Genus Cirrochron, Doubleday.
Genus Pyrameis, Hübner.	C. Thais, Fabr. Sp 149
P. Callirhoë, Hübner 138	- Aoris, Doubleday 149
— Cardui, Linn. Sp 138	— Clagia, Godart Sp 149 — Bajadeta, Moore 150
Genus Junonia, Hübner.	_ Ravana, Moore 150
J. Lemonias, Linn. Sp 139	Genus Messaras, Doubleday.
— Erigone, Cramer Sp	M. Erymanthis, Drury Sp. 150 — Alcippe, Cramer Sp 151
- Orithyia, Linn. Sp 141 - Vellida, Linn. Sp 141	Genus Atella, Doubleday.
- Asterie, Linn. Sp 142 - Almana, Linn. Sp 142	A. Phalanta, Drury Sp 151 — Egista, Cramor Sp 152

SYSTEMATIC LIST

Genus Laogona, Boisduval.	N. Nandina, Moore p. 168
L. Hyppocla, Cramer Sp. p. 153 — Hypselis, Godart 153	— Aceris, Esper Sp 168
Trypscha, Godan v	Genus Athyma, Westwood.
Genus Cethosia, Fabricius.	A. Leucothoë, Linn. Sp 170
C. Biblis, Drury Sp 153	— Asura, Moore 171
- Penthesilea, Cramer Sp. 154	— Opalina, Kollar 171
- Æole, De Haan 154	— Larymna, Doubleday 172 — Jina, Moore 172
— Cyane, Fabr. Sp 155	— Pravara, Moore
Genus Argynnis, Fabricius.	- Nefte, Cramer Sp 173
A. Niphe, Linn. Sp 155	- Inara, Doubleday Sp 173
— Aruna, Moore 156	— Cama, <i>Moore</i>
- Issan, G. R. Gray 156	— Selenophora, Kollar 175 — Ranga, Moore 175
- Kamala, Moore 156	- Mahesa, <i>Moore</i>
- Rudra, Moore 157	
- Childreni, G. R. Gray 157	Genus Abbota, Moore.
Genus Diadema, Boisduval.	A. Ganga, <i>Moore</i> 178
D. Bolina, Linn. Sp 158	Genus Limenitis, Fabricius.
— Auge, Cramer Sp 158	L. Procris, Cramer Sp 179
- Antilope, Cramer Sp 159	- Zulema, Doubleday 179
Genus Penthema, Doubleday.	- Alankara, Horsf. Sp 179
	— Paduka, Moore 179
P. Lisarda, Doubleday 160	- Ismene, Doubleday 180
Genus HESTINA, Westwood.	- Daraxa, Doubleday 180
H. assimilis, Linn. Sp 160	— Dudu, Westwood 180 — Danava, Moore 180
— consimilis, Westwood 161	- Zayla, Doubleday 181
— 1sa, Moore 161	
- persimilis, Westwood 161	Genus Pandita, Moore.
- Nama, Doubleday 162	P. Sinope (Boisd.), Moore 182
Genus Calinaga, Moore.	Stirps IV., with
C. Buddha, <i>Moore</i> 163	THYSANURIFORM Larvæ.
Genus Nepris, Fabricius.	Genus Adolias, Boisduval.
N. Hordonia, Stoll Sp 164	A. Aconthea, Cramer Sp 185
- Heliodore, Fabr. Sp 164	— Parta, Moore 185
— Miah, Moore	- Garuda, Moore
— Vikasi, Horef 165 — Manasa, Moore 165	— Phemius, Doubleday 187 — Anosia (Boied.), Moore 187
- Ananta, Moore 166	- Alpheda, Godart Sp 188
— Radha, Moore 166	- Adonia, Cramer Sp 188
— Columella, Cramer Sp 166	- Lubentina, Cramer Sp 189
— Jumba, Moore 167	— Salia, Moore 189
- Nata, Moore 168	- Palguna, Moore 190

OF THE GENERA AND SPECIES.

A. Pulasara, <i>Moore</i> p. 190	Genus Nymphalis, Latreille.
— Puseda, <i>Moore</i> 191	N. Fabius, Fabr. Sp p. 204
— Trigerta, <i>Moore</i> 191	- Athamas, Drury Sp 205
— Iapis, Godart Sp 192	- Schreiberi, Godart 205
— Ambalika, Moore 192	— Delphis, Doubleday Sp 206
— Jahnu, <i>Moore</i> 192	- Eudamippus, Doubl. Sp 206
- Sikandi, <i>Moore</i> 193	— Dolon, Westwood 206
— Evelina, Stoll Sp 193	- Marmax, Westwood 206
— Cocytina, Horef. Sp 193	— Bernardus, Fabr. Sp 206
— Cocytus, Fabr. Sp 194	- Baya, Moore 207
— Adima, Moore 194	20 a, 1200 c
- Apiades, Menetries 195	Genus Kallima, Doubleday.
— Sancara, Moore 195	
— Iva, Moore 195	K. Paralekta, Horsf. Sp 208
- Epiona, G. R. Gray 196	— Inachis, <i>Boisd.</i>
— Durga, Moore 196	— Disarriue, Cramer Sp 200
- Teuta, Doubleday 196	Genus Amathusia, Fabricius.
— Franciæ, G. R. Gray 197	
- Coresia, Hübner Sp 197	A. Phidippus, Linn. Sp 209
— Nicea, G. R. Gray 197	- Amythaon, Doubleday 210
— Nesimachus, Boisd 197	Genus Zeuxidia, Hübner.
— Dirtea, Fabr. Sp 198	
Siva, Westwood 198	Z. Luxeri, <i>Hübner</i> 210
Genus Euripus, Doubleday.	Genus Discophora, Boisd.
E. Halitherses, Doubleday 199	D. Tullia, Cramer Sp 211
- Hallirothius, Westwood 199	— Celinde, Stoll Sp 211
,	
Genus HERONA, Doubleday.	Genus Enispe, Doubleday.
	E. Euthymius, Doubleday 212
H. Marathus, Doubleday 199	- Cycnus, Westwood 212
Conve Comerce Pointmal	— Lepida, Moore 213
Genus Castalia, Boisduval.	
C. Dichroa, Kollar Sp 199	Genus Clerome, Boisduval.
— Chandra, Moore 200	C. Arcesilaus, Fabr. Sp 213
	- Phaon, Erichson 214
Genus Dilipa, Moore.	
D. Morgiana, Westw. Sp 201	Genus Drusilla, Swainson.
D. Biolgiana, 11 cata. 111 201	D. Horsfieldi, Swainson 214
Genus Apatura, Fabricius.	
	Genus Thaumantis, Hübner.
A. Ambica, Kollar 201	T. Odana, Godart Sp 214
Parvata, Moore 202	
- Parisatis, Westwood 202	- Diores, Doubleday 215
Mahala Massa 200	— Diores, Doubleday 215 Ramdeo, Moore 215
- Nakula, Moore 203	- Diores, Doubleday 215 - Ramdeo, Moore 215 - Nourmahal, Westwood 215
— Nakula, Moore 203	Ramdeo, <i>Moore</i>
— Nakula, Moore 203 Genus Symphædra, Hübner.	Ramdeo, Moore
— Nakula, Moore 203	- Ramdeo, Moore

SYSTEMATIC LIST

Genus Debis, Boisduval.	Genus Lasiommata, Westw.
D. Europa, Fabricius Sp. p. 216 — Neilgherriensis, Guérin	L. Schakra, Kollar p. 227
217	Genus Enope, Moore.
Rohria, Fabricius Sp 217	E. Pulaha, Moore 227
- Verma, Kollar Sp 217	- Bhadra, Moore 227
- Bhairava, Moore 217	
- Scanda, <i>Moore</i>	Genus Zenica, Westwood.
- Arcadia, Oramer Sp 219	Z. Achanta, Donovan Sp 228
- Mekara, <i>Moore</i> 219	0
— Chandica, Moore 219	Genus Satyrus, Latreille.
- Kansa, Moore 220	S. Padma, Kollar 228
Genus Zophoessa, Doubleday.	- Avatara, Moore 229
·	— Swaha, Kollar 229
Z. Sura, Doubleday 220	— Saraswati, Kollar 229
— Yama, <i>Moore</i> 221	Genus Erites, Boisduval.
Genus Cyllo, Boisduval.	E. Madura, Horefield Sp 229
C. Constantia, Cramer Sp. 221	220000 apr 220
- Crishna, Westwood 221	Genus Mycalesis, Hübner.
Genus MELANITIS, Fabricius.	M. Polydecta, Fabricius Sp. 230
	— Otrea, Cramer Sp 230
M. Leda, Linnaus Sp 222	- Francisca, Cramer Sp 230
— Banksia, Fabricius 222 — Vamana, Moore 223	Visala, Moore 230
- Ambasara, Moore 228	— Sanatana, Moore 231 — Mamerta, Cramer Sp 231
Bela, Moore 223	- Drusia, Cramer Sp 231
— Suyudana, Moore 224	- Malsara, Moore 231
- Varaha, Moore 224	— Gotama, Moore 232
— Gokala, Moore	- Patnia, Moore 232
— Suradeva, Moore 225	— Anapita, Moore
Genus Collites, Boisduval.	— Heri, Moore
C. Epiminthia, Boisduval 225	— Samba, Moore 233
	— Mandata, Moore 233
Genus Orinona, Doubleday.	- Hesione, Cramer Sp 234
O. Damaris, G. R. Gray Sp. 225	— Runeka, <i>Moore</i>
Genus NEORINA, Westwood.	
N. Hilda, Westwood 226	Genus Theope, Moore.
Genus RAGADIA, Westwood.	T. Himachala, Moore 234
Makuta, Horefield Sp 226	Genus Yphthima, Hübner.
Genus Erebia, Dalman.	Y. Lysandra, Cramer Sp 235
226	- Philomela, Hübner 235 Boied.), Moore 235
226	Moore 236

OF THE GENERA AND SPECIES.

Y. Sakra, <i>Moore</i> p. 236 — Narasingha, <i>Moore</i> 236	G. Pralaya, Moore p. 246 — Bhagava, Moore 246
Genus Elymnias, Hübner.	Sambara, Moore 246
E. Lais, Fabr. Sp 237	Genus Ismene, Swainson.
- undularis, Fabr. Sp 237	I. Œdipodea, Swainson 247
— Dusara, Horsf. Sp 238	— Jaina, Moore 247
- Vasudeva, Moore 238	— Harisa, <i>Moore</i> 247
- Patna, Westwood Sp 238	— Amara, Moore 247
— leucocyma, Godart Sp 238 — Kamara, Moore 239	- Vasutana, Moore 247
- Kamara, Moore 239	— Benjamini, Guérin 248 — Jayadeva, Moore 248
Genus Hypanis, Boisduval.	— Sinta, Moore
H. Ilithyia, Drury Sp 239	— Dasa, Moore 248
	- Ladon, Cramer Sp 248
Genus LIBYTHEA, Fabricius.	Ambasa, Moore 248
L. Myrrha, Godart 240	- Chaon, Boisd 248
— Lepita, Moore 240	Batara, Moore 249
Stirps V., with	Genus
ANOPLURIFORM Larvæ.	P. Agama, Moore 249
	— Superna, Moore 249
Genus Zemeros, Boisduval.	— Danna, Moore 249
Z. Flegyas, Cramer Sp 242	— Purendra, <i>Moore</i> 250
Genus TAXILA, Doubleday.	Genus Nisoniades, Hübner.
T. Durga, Kollar Sp 242	N. Salsala, Moore 250
Egeon, Boisd. Sp 242	— Daha, Moore
243	— Diocles, Boisd 250 Amerta, Moore.
243	Timerta, moore.
— Echerius, Stoll Sp 243 — Neophron, Boied. Sp 243	Genus Pamphila, Fabricius.
- Drupadi, Horef. Sp 244	P. Vedangu, Moore 250
- Fylla, Boisd. Sp 244	- Naranata, Moore 251
	— Augias, Linn. Sp. 251 — Sumbadra, Moore 251
Genus Goniloba, Westwood.	— Sumbadra, 220076 201
	Genus Achlyodes, Hübner.
G. Chromus, Cramer Sp 244 - Sens, Moore	A. Chandrasa, Moore 251
— Derma, Moore 245	— Sura, Moore 251
- Badra, Moore 245	- Vasava, Moore 252
- Japetus, Oramer Sp 245	Come Unapunes Fabricies
— Gana, Moore 245	Genus Hesperia, Fabricius.
— Ravi, Moore 246	H. Folus, Cramer Sp 252
Tapana, Moore 246	- Fatih, Kollar 252
- Menaka, <i>Moore</i> 246 Gopala, <i>Moore</i> 246	— Pulomaya, <i>Moore</i> 252 — leucocerca, <i>Kollar</i> 252
- Madhava, Moore 246	— Putra, Moore 253

CATALOGUE

OF

THE LEPIDOPTEROUS INSECTS

IN THE

Museum of the East-India Company.

Class INSECTA.

Div. I. INSECTA HAUSTELLATA.

INSECTA HAUSTELLATA (Clairville). Stephens, Ill. Brit. Ent. vol. I. p. 1 (1828).

Order LEPIDOPTERA.

LEPIDOPTERA, Linnæus, Syst. Nat. (1748).

GLOSSATA, Fabricius, Syst. Entom. (1775).

LEPIDIOPTERA, Clairville.

LÉPIDOPTÈRES, Duméril, Consid. Gén. des Ins. p. 134 (1823). Boisduval, Spéc. Gén. Lép. I. p. 162 (1836).

Tribe I. PAPILIONES.

LEPIDOPTERA DIURNA, Latreille, Gen. IV. p. 186 (1809). Stephens. G. R. Gray.

RHOPALOCÈRES, Duméril, Consid. Gén. des Ins. p. 222 (1823). Boisduval, Spéc. Gén. Lép. I. p. 162 (1836).

Papilionide, Horsfield, Cat. Lep. Mus. E.I.C. pp. 20, 57 (1828).

Papilionides, Boisdaval, Hist. Gén. des Lép. Amér. Sep. p. 2 (1829).

RHOPALOCERA, Stainton, Ins. Brit. Lepid. Tineina, p. 2 (1854); et Manual Brit. Butt. p. 10 (1856). Walker, Cat. Lep. Brit. Mus. pt. I. Lep. Het. p. 1 (1854).

Succincti, Boisduval, Spéc. Gén. Lép. I. pp. 162, 171 (1886).

SUCCINCIA, Boisdaval, Index Meth. p. 1 (1840).

VOL. I.

Stirps I., with VERMIFORM Larvæ.

VERMIFORM, Horsfield, Cat. Lep. Mus. E.I.C. pp. 21, 38, 64 (1828).

LYCENIDE, Leach, Edinb. Encyclop. IX. p. 129 (1815). Stephens.

Doubleday. Westwood. Stainton (Manual), pp. 10, 40.

POLYOMMATIDÆ, Swainson, Phil. Mag. I. p. 187 (1827).

POLYOMMATES, Boisduval, Hist. Gén. des Lép. Amér. Sep. p. 2 (1829).

LYCENIDES, Boisduval, Icon. I. (1832); id. Sp. Gén. Lép. I. p. 164 (1836); id. Index Méth. p. 8 (1840).

PLEBEI RURALES, Linnœus.

POLYOPHTHALMI, Aldrovandus.

Genus MILETUS, Hübner.

MILETUS, Hübner, Verz. bek. Schmett. (1816). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 502.

SYMETHA, Horefield, Cat. Lep. Mus. E.I.C. p. 59, t. 2, f. 2 (1828). GERYDUS, Boisduval, Sp. Gén. Lép. p. 6 (1836).

1. MILETUS SYMETHUS, Cramer Sp.

Papilio Symethus, Cramer, Pap. Exot. II. t. 149, f. B.C. (1779). Stoll, Suppl. à Cramer's Pap. I. t. 37, f. 3, 3c. Fabricius, Mant. Ins. II. p. 69.

Miletus Symethus, Hübner, Verz. bek. Schmett. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 503, No. 1.

Polyommatus Symethus, Godart, Enc. Mith. IX. p. 675.

- Q Gerydus Symethus, Boisduval, Sp. Gén. Lép. p. 6, t. 23, f. 2. Doubleday, List Lep. Brit. Mus. pt. II. p. 57.
- Symetha Pandu, Horefield, Cat. Lep. Mus. E.I.C. t. 2, f. 2, 2a (1828).
- ? Symæthus Leos, Guérin, Voy. Coquille Ins. t. 18, f. 8.
- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.

The characters of this genus are peculiar, and its situation in a Natural Series remains for future investigation. Its chief peculiarity consists in the character of its legs, of which Mr. Westwood gives the following description: "Legs rather short, slender, scaly, compressed. The tarsi in all the feet, with the basal joint, remarkably

elongated, widened, and quite compressed; the tarsus in the fore-legs of the male being exarticulate, and as long as the femur and tibia united; second, third, and fourth joints in the four hind-legs very short, terminal joint small, subovate, notched at its obliquely-truncated extremity, with extremely minute ungues."

2. MILETUS BOISDUVALI, Moore (Plate 1a, fig. 1).

M. Boisdwali, n. sp.—UPPER-SIDE brown; fore-wing with a whitish fascia running from near the middle of the anterior margin to near the anal angle; hind-wings slightly angulated. UNDER-SIDE pale brown; fore-wing, with fascia, as on upper side, intersected with veinlets, and having three spots in the disciodal cell, one on each of the three anterior subcostal veinlets; also an undulated spot near the anterior angle, and a small blackish dot between each veinlet near the exterior margin; hind-wing also marked with undulated spots and stripes, and with a dot between each veinlet. Form of wings as in ? Symatha; expanse of wings 1_{1}^{*} in.

a. b. 9. Java. From Dr. Horsfield's Collection.

3. MILETUS HORSFIELDI, Moore (Plate 1a, fig. 2).

M. Horsfieldi, n. sp.—UPPER-SIDE brown, fore-wing of the male with an oval longitudinal whitish spot in the centre; female wholly brown, with but a faint indication of lighter colour in the centre of the fore-wing. UNDER-SIDE of both sexes creamy-white, and densely covered with undulating brown strigs, both wings also having near the exterior margin a darker brown dot between each veinlet. Hindwings rounded, and, in the male, slightly angulated; in the female, these are acute. Expanse of wings in the male $1_{1/2}^{n}$ in., female $1_{1/2}^{n}$ in.

a. b. c. ♂ ♀. Java. From Dr. Horsfield's Collection.

Genus PITHECOPS, Horsfield.

PITHECOPS, Horsfield, Cat. Lep. Mus. E.I.C. p. 66 (1828). LYCANA, p. Westwood, Diurnal Lep.

4. PITHECOPS HYLAX, Fabricius Sp.

Hesperia Hylax, Fabricius, Mant. Ins. II. p. 77 (1787); Ent. Syst. III. pt. I. p. 304.

Polyommatus Hylax, Godart, Enc. Méth. H. N. IX. p. 701. Donovan, Ins. of India, t. 46, f. 2.

3 Pithecops Hylax, Horsfield, Cat. Lep. Mus. E.I.C. p. 66, t. 1, f. 2, 2a, 2b (1828). Doubleday, List Lep. Brit. Mus. pt. II. p. 57.

Lycena Hylax, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 496, No. 198, t. 76, f. 8.

- a. b. J. Java. From Dr. Horsfield's Collection.
- c. d. 9. India. From the Asiatic Society of Bengal.

"In many essential points, the form of the palpi and antennæ, the peculiarities of the feet, &c., this insect agrees with the character of the genus *Polyomnatus*, but its habit and aspect are very peculiar: this is owing to the great length and lateral expansion of the wings, to their comparative narrowness, and to their being regularly elliptical and rounded in the anal region."—(Horsfield, Catal.)

"This insect has also naked eyes, scaly palpi, and spurless fore tibiæ, but the wings have the veins arranged in the ordinary manner, and the ungues and their appendages are as small and inconspicuous as in the genus Lycona."—(Westwood, Diurn. Lep.)

Genus POLYOMMATUS, Latreille, Pr. S. D. POLYOMMATUS, Latreille, Règ. An. III. p. 553 (1817). POLYOMMATUS, Stephens. Curtis. Swainson. LYCENA, p. Doubleday. Westwood (Diurn. Lep.).

5. POLYOMMATUS AKASA, Horsfield.

Polyommatus Akasa, Horefield, Cat. Lep. Mus. E.I.C.

p. 67, t. 1, f. 1, 1a (1828).

Lycenn Akasa, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 491, No. 55.

a. b. 9. Java. From Dr. Horsfield's Collection.

"This species is not abundant in the island of Java, two specimens only being obtained."—(Horsfield.)

6. POLYOMMATUS PUSPA, Horsfield.

3 Polyommatus Puspa, Horefield, Cat. Lep. Mus. E.I.C. p. 67 (1828).

Lycena Puspa, Doubleday, List Lep. Brit. Mus. pt. II. p. 44. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 491, No. 56.

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e.f. d. N. India. Presented by Colonel Buckley.

"Common in Java."—(Horsfield.)

7. POLYOMMATUS LAIUS, Cramer Sp.

- § Papilio Laius, Cramer, Pap. Exot. IV. t. 319, f. D. E.
 (1782).
 - Lycena Laius, Doubleday, List Lep. Brit. Mus. pt. II. p. 44. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 491, No. 63.
 - Hesperia Caius, *Fabricius*, *Ent. Syst.* III. *pt.* I. *p.* 296 (1793).

Polyommatus Caius, Godart, Enc. Meth. IX. p. 701.

a. b. 3 ?. India. From the Asiatic Society of Bengal.

Genus LYCÆNA, Fabricius.

LYCENA, Fabricius (Illiger's Mag. VI. 1807). Westwood, Diurn. Lep.

POLYOMMATUS, p. Godart.

8. LYCÆNA PLUTO, Fabricius Sp.

- Hesperia Pluto, Fabricius, Ent. Syst. III. pt. I. p. 288 (1793).
- Lycæna Pluto, Donovan, Ins. of India, t. 45, f. 2. Hombron et Jacquenot, Voy. Pôle Sud, Lép. t. 3, f. 9, 10. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 490, No. 42.
- Lycæna Nila, Horsfield, Cat. Lep. Mus. E.I.C. p. 78 (1828). E. Doubleday, List Lep. Brit. Mus. pt. II. p. 43 (nec. T. Nila, Kollar).
- a. b. J. N. India. From the Asiatic Society of Bengal.
- c. d. Ceylon. Presented by the Trustees of the British Museum.
- d. J. Java. (L. Nila, Horsf.) From Dr. Horsfield's Collection.

9. LYCÆNA AMYNTAS, Fabricius Sp.

Papilio Amyntas, Fabricius, Mant. Ins. II. p. 70 (1787). Wien. Verz. p. 185.

Lycena Amyntas, Ochsenheimer, Schmett. von Europa, IV. p. 26. E. Doubleday, List Lep. Brit. Mus. pt. II. p. 48. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 490, No. 43.

Polyommatus Amyntas, Godart, Enc. Méth. IX. p. 659.

a. d. China (?). Donor unknown.

10. LYCÆNA ARATUS,* Cramer Sp.

Papilio aratus, Cramer, Pap. IV. t. 365, f. A.B.? (1782).
Lycana atratus, Horsfield, Cat. Lep. Mus. E.I.C. p. 78.
Westwood, in Doubleday and Hewitson's Diurnal
Lep. p. 490, No. 29.

a. 9. Java. From Dr. Horsfield's Collection.

If new, L. Kurava, Moore.

11. LYCÆNA PARRHASIUS, Fabricius Sp. (Plate 1a, fig. 3).

Hesperia Parrhasius, Fabricius, Ent. Syst. III. pt. I.

p. 289 (1793).

Lyceona Parrhasius, Horsfield, Cat. Lep. Mus. E.I.C. p. 86. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 489, No. 13.

Papilio Parrhasius, Donovan, Ins. India, t. 45, f. 5. Polyommatus Parrhasius, Godart, Enc. Méth. IX. p. 657.

a. b. 3. Java. From Dr. Horsfield's Collection.

12. LYCÆNA PANDAVA, Horsfield.

Q Lycena Pandava, Horefield, Cat. Lep. Mus. E.I.C. p. 84
(1829). Westwood, in Doubleday and Hewitson's
Diurnal Lep. p. 489, No. 14.

a. ?. Java. From Dr. Horsfield's Collection.

13. LYCÆNA CNEJUS, Fabricius Sp.

Hesperia Cnejus, Fabricius, Ent. Syst. V. Suppl. p. 430 (1798).

^{*} This species was named arous by Cramer, not atrains as quoted by authors.

Lyceens Cnejus, Horsfield, Cat. Lep. Mus. E.I.C. p. 83.

Doubleday, List Lep. Brit. Mus. pt. 11. p. 43.

Westwood, in Doubleday and Hewitson's Diurnal
Lep. p. 490, No. 40.

Polyommatus Cnejus, Godart, Enc. Méth. IX. p. 657.

- a. Q. Java. From Dr. Horsfield's Collection.
- b. c. & ?. India. From the Asiatic Society of Bengal.

14. LYCÆNA DAMOETES, Fabricius Sp.

Papilio Damoetes, Fabricius, Mant. Ins. II. p. 77 (1787).

Donovan, Ins. New Holl. t. 31, f. 2.

Lycena Damoetes, Horsfield, Cat. Lep. Mus. E. J. C. p. 81. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 496, No. 193.

Polyommatus Damoetes, Godart, Enc. Méth. 1X. p. 680.

a. b. 3 ?. Java. From Dr. Horsfield's Collection.

15. LYCÆNA KANDARPA, Horsfield.

- Lycena Kandarpa, Horsfield, Cat. Lep. Mus. E. I. C. p. 82 (1829). Doubleday, List. Lep. Brit. Mus. pt. II. p. 43. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 490, No. 39.
- a. b. c. 3 9. Java. From Dr. Horsfield's Collection.
- d. e. J. N. India. From the Asiatic Society of Bengal.
- f. 9. N. India. Presented by Colonel Hearsey.

16. LYCÆNA BOETICA, Linnæus Sp.

Papilio Boeticus, Linnæus, Syst. Nat. II. p. 789 (1766). Hübner, Eur. Schmett. Pap. t. 74, f. 373, 375. Ochsenh. Pap. Eur. t. 1, 2, p. 99; id. Schmett. v. Eur. p. 27.

Lycæna Boetica, Horsfield, Cat. Lep. Mus. E.I.C. p. 80.

Kollar, in Hügel's Kaschmir, IV. pt. II. p. 418.

Doubleday, List Lep. Brit. Mus. pt. II. p. 42.

Westwood, in Doubleday and Hewitson's Diurnal

2. p. 490, No. 25. Gerhard, Lycænidæ, t. 11, f. 1.

- Hesperia Boetica, Fabricius, Ent. Syst. III. pt. L. p. 280. Polyommatus Boeticus, Godart, Enc. Méth. IX. p. 653. Papilio Coluteæ, Rossi, Faun. Etr. II. p. 155 (1795).
- a. b. c. d. & Q. Java. From Dr. Horsfield's Collection.
- e. f. g. h. J Q. N. India. Presented by Colonel Hearsey.

17. LYCÆNA PAVANA, Horsfield.

- Lycana Pavana, Horsfield, Cat. Lep. Mus. E.I.C. p. 77 (1828). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 490, No. 41 (nec. P. Pavana, Kollar).
- a. b. 3 ?. Java. From Dr. Horsfield's Collection.

18. LYCÆNA ELPIS, Godart Sp.

- Polyommatus Elpis, Godart, Enc. Méth. IX. p. 654 (1819).
- Lycoma Elpis, Horsfield, Cat. Lep. Mus. E.I.C. p. 76, t. 1, f. 4. Doubleday, List Lep. Brit. Mus. pt. II. p. 42. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 490, No. 28.
- a. b. c. d. & Q. Java. From Dr. Horsfield's Collection.
- e. N. India. From the Asiatic Society of Bengal.

19. LYCÆNA CELENO, Cramer Sp.

- ¿ Papilio Celeno, Cramer, Pap. Exot. I. t. 31, f. C. D. (1779). Donovan's Drawings in Bibl. Hope, Oxford.
 - Lycena Celeno, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 490, No. 27.
 - Papilio Celerio, Fabricius, Mant. Ins. II. p. 66 (1787).
 - Polyommatus Celerio, Godart, Enc. Méth. IX. p. 654.
 - Lycsena Celerio, Horsfield, Cat. Lep. Mus. E.I.C. p. 75. Doubleday, List Lep. Brit. Mus. pt. II. p. 42.
- a. b. c. & Q. Java. From Dr. Horsfield's Collection.
- d. d. Borneo. Presented by A. Lowe, Esq.

20. LYCÆNA ALEXIS, Stoll Sp.

- Lycena Alexis, Doubleday, List Lep. Brit. Mus. pt. II. p. 42.
- J Papilio Alexis, Stoll, Suppl. Cramer's Pap. p. 167, t. 38, f. 3, 3a (1791).
 - Hesperia Ælianus, Fabricius, Ent. Syst. III. pt. I. p. 280 (1793).
 - Lycæna Ælianus, Horsfield, Cat. Lep. Mus. E.I.C. p. 73, t. IV. f. 1, 1a. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 490, sp. 38.
 - Polyommatus Ælianus, Godart, Enc. Méth. IX. p. 654.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. J. N. India. From the Asiatic Society of Bengal.
- g. h. g ?. Canara. Presented by S. N. Ward, Esq.

"The larva of L. Alexis feeds on the Butea frondosa, and was observed in the month of February in Java."—(Horsfield.)

The larva and pupa of this species are figured on Plate 1, fig. 1, 1a.

21. LYCÆNA PLINIUS, Fabricius Sp.

- Hesperia Plinius, Fabricius, Ent. Syst. III. pt. I. p. 284 (1793).
- Lycena Plinius, Horefield, Cat. Lep. Mus. E.I.C. p. 72. Westwood, in Doubleday und Hewitson's Diurnal Lep. p. 489, No. 17.
- Papilio Plinius, Donovan, Ins. of India, t. 45, f. 1.
- Polyommatus Plinius, Godart, Enc. Méth. IX. p. 658.
- a. b. c. o q. Java. From Dr. Horsfield's Collection.
- d. e. f. ♂ ♀. N. India. Presented by Colonel Hearsey.

B

22. LYCÆNA THEOPHRASTUS, Fabricius Sp.

- Hesperia Theophrastus, Fabricius, Ent. Syst. III. pt. I. p. 281 (1793).
- Lyceena Theophrastus, Horsfield, Cat. Lep. Mus. E.I.C. p. 73. Doubleday, List Lep. Brit. Mus. pt. 11. p. 41.

Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 489, No. 10.

Polyommatus Theophrastus, Godart, Enc. Méth. IX. p. 658.

- a. b. India. From the Asiatic Society of Bengal.
- c. Canara. Presented by S. N. Ward, Esq.
- d. e. f. g. N. India. Presented by Colonel Hearsey.

23. LYCÆNA ROSIMON, Fabricius Sp.

Papilio Rosimon, Fabricius, Mant. Ins. II. p. 71 (1787). Lycæna Rosimon, Horsfield, Cat. Lep. Mus. E. I. C. p. 71. Doubleday, List Lep. Brit. Mus. pt. II. p. 41. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 489, No. 8.

Polyommatus Rosimon, Godart, Enc. Méth. IX. p. 658. Papilio Corydon, Cramer, Pap. t. 340, f. C.D.E. 1782 (nec. Fabr.).

a. b. c. d. e. ♂ ♀. Java. From Dr. Horsfield's Collection.

f. g. Silhet. Presented by Colonel F. Buckley.

24. LYCÆNA MALAYA, Horsfield.

Lycena Malaya, Horefield, Cat. Lep. Mus. E.I.C. p. 70 (1828). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 489, No. 15.

a. b. Java. From Dr. Horsfield's Collection.

"This species is comparatively scarce in Java, having obtained only two specimens. In its habit it greatly resembles the individuals of the genus *Polyomnatus*."—(Horsfield.)

25. LYCÆNA ROXUS, Godart Sp.

Polyommatus Roxus, Godart, Enc. Méth. IX. p. 659 (1819).

Lycena Roxus, Horsfield, Cat. Lep. Mus. E.I.C. p. 70, t. 2, f. 4, 4a. Doubleday, List Lep. Brit. Mus. pt. II. p. 41. Westwood, in Doubleday and Henritson's Diurnal Lep. p. 489, No. 7.

a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.

"Hitherto this species has only been found in Java; it occurs in considerable numbers in the skirts of large forests; but from the great delicacy of the wings, it is not easily obtained in a perfect state."—(Horsfield.)

26. LYCÆNA PSEUDOROXUS, Doubleday.

- Lycena pseudoroxus, Doubleday, List Lop. Brit. Mus. pt. II. p. 41 (1847).
- a. Silhet. Presented by the Trustees of the British Museum.

27. LYCÆNA NYSEUS, Guérin Sp.

- Polyommatus Nyseus, Guérin-Méneville, in Delessert's Souv. Voy. Inde, pt. II. p. 78, t. 22, f. 1, 1a (1843).
- Lycena Nyseus, Doubleday, List Lep. Brit. Mus. pt. 11. p. 40. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 489, No. 6.
- a. b. c. Canara. Presented by S. N. Ward, Esq., E.I.C.C.S.
- d. e. Madras. From Captain J. M. Jones's Collection.

Genus CHRYSOPHANUS, Hübner.

CHEYSOPHANUS, Hübner, Verz. bek. Schmett. p. 72 (1816). Westwood. Stephens.

POLYOMMATUS, Boisdaval. H. Schaffer. Doubleday.

LYCENA, Stephens (Ill.). Curtis (Guide).

28. CHRYSOPHANUS PHLÆAS, Linnæus Sp.

Papilio Phlæas, Linnæus, Syst. Nat. II. p. 793 (1766).

Chrysophanus Phleas, Hübner, Eur. Schmett. Pap. f. 362, 363. Stephens, Cat. Brit. Lep. Brit. Mus. p. 17. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 498, No. 4.

Polyommatus Phlwas, Godart, Enc. Méth. IX. p. 670. Doubleday, List Lep. Brit. Mus. pt. II. p. 53. Kollar, in Hügel's Kaschmir, IV. pt. II. p. 417.

Lycsena Phlasas, Stephens, Ill. Brit. Lep. H. I. p. 79.

- 2 Papilio Virgaurew, Scopoli, Ent. Carn. p. 181.
- Var. 2 Papilio Timæus, Cramer, Pap. t. 146, f. E.F.

Var. Papilio turcicus, Gerhard, Lycan. t. 5, f. 5.

- a. b. 3 2. Booten. From Pemberton's Collection.
- c. d. & Q. N. India. Presented by Colonel Hearsey.
- e. 2. Darjeeling. Collected by the Messrs. Schlagintweit.

29. CHRYSOPHANUS PAVANA, Kollar Sp.

- 3 Polyommatus Pavana, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 416, t. 5, f. 56 (1844), (nec. L. Pavana, Horef.).
 - Thecla Panava, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 487, No. 143 (1852).
- a. b. J. N. India. Presented by Colonel Buckley. c. d. e. f. J. ♀. N. India. Presented by Colonel Hearsey.

Genus ILERDA, E. Doubleday.

ILERDA, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 25 (1847).

THECLA, p. Boisduval. Westwood, in Doubleday and Hewitson's Diurnal Lop.

30. ILERDA SENA, Kollar Sp.

Theela Sena, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 487, No. 142.

? Thecla Cadma, Boisduval, MS. (1847).

Ilerda Cadma, Doubleday, List Lep. Brit. Mus. pt. II. p. 25.

- a. d. Darjeeling. Reserved from the Indian Collection, Exposition Universelle at Paris, 1855.
- b. ?. N. India. Presented by Colonel Buckley.

31. ILERDA TAMU, Kollar Sp.

Polyommatus Tamu, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 417, t. 5, f. 7, 8 (1844).

Theela Tamu, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 487, No. 144.

a. b. d. Bootan. From Pemberton's Collection.

Remark.-Upper-side of wings with glittering blue patches.

32. ILERDA ANDROCLES, Boiedwal Sp.

- Thecla Androcles, Boisduval, MS. (1847). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 487, No. 141, tab. 75, f. 2.
- Ilerda Androcles, E. Doubleday, List Lop. Brit. Mus. pt. II. p. 25.
- a. 3. Silhet. Presented by the Trustees of the British Museum.
- b. c. 3. Darjeeling. Presented by Lieutenant Hugo James.
- d. e. J. Darjeeling. Collected by Messrs. Schlagintweit.

Remark.—Upper-side of wings with glittering green patches.

33. ILERDA BRAHMA, Moore (Plate 1a, Fig. 4).

Ilerda Brahma, n. sp.—Differs from the two preceding species in having the patches of the wings glittering coppery-gold colour, and a broader and longer exterior red band to the hind-wings.

a. J. Darjeeling. Collected by the Messrs. Schlagintweit.

84. ILERDA EPICLES, Godart Sp.

Polyommatus Epicles, Godart, Enc. Méth. IX. p. 646 (1819).

Thecla Epicles, Horsfield, Cat. Lep. Mus. E.I.C. p. 92, t. 1, f. 3. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 487, No. 140.

Ilerda Epicles, Doubleday, List Lep. Brit. Mus. pt. II. p. 25.

- 9 Heliophorus Belenus, Hübner, Zutr. f. 785, 786 (1832).
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. J. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

"This species is not uncommon in the acclivities near the confines of the extensive medial plain of Java."—(Horsfield.)

"The *Hordæ* are beautiful species, with naked eyes, setose palpi, antennæ with long joints ringed with white, and a very well-marked club, and with three branches to the postcostal vein of the forewings."—(Westwood, Diurnal Lep. p. 482.)

Genus THECLA, Fabricius.

THECLA, Fabricius (in Illiger's Magaz. VI.) (1807). POLYOMMATUS, p. Godart.

35. THECLA ONYX, Boisduval.

Thecla Onyx, Boisduval, MS. (1847).

Myrina Onyx, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 22.

a. Moulmein. Presented by the Trustees of the British Museum.

Thecla Onyx.—UPPER-SIDE has the fore-wings dark brown, with a patch of white in the centre; the posterior base, from the subcostal veinlet to the middle of the disc, cyaneous. Hind-wings light brown; centre, from base to near exterior margin, cyaneous, paling to light bluish-brown along the abdominal margin. Tails three, two inner longish. UNDER-SIDE pale ferruginous brown; a white fascia crossing the anterior and posterior wings towards anal angle, and ending upwards to abdominal margin in a greenish-metallic line, the latter being bounded inwardly by a narrow blackish line; a blackish spot and line at the anal angle, and another spot some distance off on the exterior margin.

Genus DIPSAS, Doubleday.

DIPBAS, Doubleday, List Lep. Brit. Mus. pt. II. p. 25 (1847). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 479 (1852).

APHNEUS, p. Doubleday, List Lep. Brit. Mus. pt. II. p. 25 (1847). SITHON, Hübner, Verz. bek. Schmett. p. 77 (1816).

36. DIPSAS SYLA, Kollar Sp.

J Thecla Syla, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 414, t. 4, f. 7, 8 (1844).

Dipsas Syla, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 1.

of Thecla Pholus, Boisdaral, MS. (1847).

- Dipsas Pholus, Doubleday, List Lop. Brit. Mus. pt. II. p. 25.
- Amblypodia Euphranor, Doubleday, List Lep. Brit. Mus. pt. II. p. 25 (1847).
- a. d. Darjeeling. From Pearson's Collection.
- b. c. d. d. N. India. Presented by Colonel Buckley.
- d. e. Q. Darjeeling. Reserved from the Indian Collection, Exposition Universelle at Paris.

"This species, which is the type of the genus, has a general resemblance to the types of Amblypodia, the male being golden-green on the upper surface of the wings, with a black margin (thus resembling Amblyp. Eumolphus), whilst the female has the disc of the fore-wings blue, with a white spot beyond the middle, and a broad dark brown margin. From the typical Amblypodiæ they are at once distinguished by the hairy eyes and palpi, and the want of an upper disco-cellular vein in the fore-wings."—(Westwood.)

37. DIPSAS ATAXUS, Boisduval Sp.

Thecla Ataxus, Boisduval, MS. (1847).

- Jipsas Ataxus, Doubleday, List Lep. Brit. Mus. pt. II. p. 25. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, t. 74, f. 7.
 - a. d. N. India. Presented by Colonel Buckley.
 - b. 3. Darjeeling. From Messrs. Schlagintweit's Collection.

38. DIPSAS XENOPHON, Fabricius Sp.

Hesperia Xenophon, Fabricius, Ent. Syst. III. pt. I. p. 272 (1793).

Dipeas Xenophon, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 3.

Polyommatus Xenophon, Godart, Enc. Méth. IX. p. 640.

Papilio Xenophon, Donovan, Ins. of India, t. 41, f. 8. Thecla Xenophon, Horsfield, Cat. Lep. Mus. E. I. C.

Theela Xenophon, Horsfield, Cat. Lop. Mus. E. I. C. p. 94, t. IV. f. 2, 2a.

a. b. c. d. e. 3 ?. Java. From Dr. Horsfield's Collection.

"The larva of this species feeds on Schmiedelia racemosa, and was found in Java in considerable numbers."—(Horsfield.)

The larva and pupa of D. Xenophon are figured on Plate 1, fig. 3, 3a.

39. DIPSAS MELAMPUS, Cramer Sp.

- 3 Papilio Melampus, Cramer, Pap. Exot. IV. t. 362, f. G.H. (1782).
 - Aphnæus Melampus, Doubleday, List Lep. Brit. Mus. pt. II. p. 25.
 - Hesperia Jarbas, Fabricius, Mant. Ins. II. p. 68 (1787).
 - Dipsas Jarbas, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 5.
 - Polyommatus Jarbas, Godart, Enc. Méth. IX. p. 646.
 - Papilio Jarbas, Donovan, Ins. of India, t. 40, f. 3.
 - Thecla Jarbas, Horsfield, Cat. Lep. Mus. E.I.C. p. 93.
- Theela Sorya, Kollar, in Hügel's Kaschmir, IV. pt. II.
 p. 414, t. 5, f. 1, 2 (1844).
- a. b. c. d. e. 3 9. Java. From Dr. Horsfield's Collection.
- f. g. h. &. N. India. Presented by Colonel Buckley.

The larva and pupa of D. Melampus are figured on Plate 1, fig. 2, 2a.

40. DIPSAS EPIJARBAS, Boisduval Sp.

Thecla Epijarbas, Boisduval, MS.

- Aphneus Epijarbas, Doubleday, List Lep. Brit. Mus. pt. II. p. 26.
- a. c. Canara. Presented by S. N. Ward, Esq., E.I.C.C.S.
- b. ?. N. India. Presented by the Trustees of the British Museum.
- c. d. Darjeeling. From the Indian Collection, Exposition Universelle at Paris, 1855.

This is larger than *D. Jerbas*, the male having on the UPPER-SIDE of the fore-wings the dark brown border occupying the whole space between the anterior margin and the median vein (in the latter of which it is nearly black), and then branching off to exterior margin, and ending in a point at the middle of the hind margin. The UNDER-SIDE is of a duller tint, and has two whitish undulating lines crossing

the fore and hind-wings, as also two short lines from the median to subcostal veinlet. The outer black spot is entirely encircled with yellow, and above the anal spot is a well-defined lunar-shaped streak of metallic green. The female is somewhat larger, with rounder wings, and is of a fulvous-brown, and may be distinguished by the similarity of the markings of the under-side. Expanse of wings in the male $1_{15}^{\rm r}$ in., in the female $1_{10}^{\rm r}$ in.

41. DIPSAS CHRYSOMALLUS, Hübner Sp.

- ¿ Zesius chrysomallus, Hübner, Zuträge, f. 301, 302 (1823).
 Chrysophanus chrysomallus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 499, No. 29.
- ? S. Myrina Setho, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 22.
 - a. d. S. India. Donor not known.
 - b. 9. Canara. Presented by S. N. Ward, Esq.
 - c. d. ?. Locality and donor unknown.

D. chrysomallus. — UPPER-SIDE of male pale cupreous, outer-margin brownish; at anal angle three blackish spots. Tails three. UNDER-SIDE pinkish creamy-white; a band composed of roundish pinkish spots disposed irregularly across both wings; fore-wing with five, and hind-wing with eight pinkish spots towards the base; anal angle with three spots, the two outer black, banded above with red, and the centre one bluish; near outer-margin is a line of indistinct marks; extreme outer-margin and tails pinkish. Female larger, wings more square, brown, tinged with bluish at base; spots on under-side, as in the male, but of a brighter colour.

42. DIPSAS ISOCRATES, Fabricius Sp.

Hesperia Isocrates, Fabricius, Ent. Syst. III. pt. I. p. 266 (1793).

Dipeas Isocrates, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 4.

Polyommatus Isocrates, Godart, Enc. Méth. IX. p. 633.

Theela Isocrates, Westwood, Trans. Linn. Soc. II. p. 4, t. 1, and Donovan's Ins. India, 2nd edit. Downes, Calcutta Journ. N. H. II. p. 408.

Aphneus Isocrates, Doubleday, List Lep. Brit. Mus. pt. II. p. 26. Hesperia Pann, Fabricius, Ent. Syst. III. pt. I. p. 276. Papilio Pann, Donovan, Ins. India, t. 38, f. 1 (nec. Drury).

- a. b. c. d. ♂ ♀. Silhet. Presented by Colonel Buckley.
- e. f. J. Darjeeling. From Messrs. Schlagintweit's Collection.

The following notice of the transformations of this interesting species was read before the Entomological Society of London, February 2, 1835, by J. O. Westwood, Esq., having been traced by Mr. Charles King, of Madras.

"The larvæ of this butterfly reside in the interior of the pomegranate; seven or eight, at least, having been reared in the interior of a small specimen of this fruit. Of the mode in which the eggs are deposited by the female in the interior of the pomegranate, no information has been received; it is, however, probable that this is effected whilst the fruit is in its very young state. The caterpillars feed upon the seeds and inner part of the fruit, which is thus weakened, and rendered unable to support its own weight, and consequently liable to have its stem broken, and to fall to the ground with the first wind. This, however, would be destruction to the inclosed insects; since, in all probability, they would find it impossible to make their escape were the fruit to be suffered to lie rotting upon the ground. To obviate this evil, the caterpillars, when full fed, have the instinct to eat a hole, about a quarter of an inch in diameter, through the hard shell of the fruit, whilst it remains upon the tree; through this hole they then creep to the stem of the fruit, and spin a white web, which they attach to the basal part of the fruit as well as to the stem, for about the distance of an inch along the latter. This web is sufficiently strong to support the pomegranate from falling after the wind has broken the stem near to the fruit, as is the case in the specimen of the fruit in hand.

From the circumstance of this specimen having as many holes in it as there were caterpillars inhabiting it, it is most probable that the web thus spun is a joint production of the whole.*

^{*} It is curious, as evidencing the instinctive impulses under which each of the inclosed larves must have acted, that, instead of availing themselves of the first aperture made in the fruit, each caterpillar should be at the trouble of making a hole for itself, a circumstance which renders it the more probable that all joined in spinning the web.

But it will be at once asked, What necessity could there be for the caterpillars to secure the fruit from falling after each has bored a hole and thus made its escape? This question is answered by the curious circumstance that, after so securing the fruit, the caterpillars return again into the pomegranate, in the hollow interior of which they undergo their transformation to the chrysalis state.

Here, too, we may notice another interesting fact, namely, that the insect has the precautionary instinct, which acts as a second inducement, to make the aperture in the fruit in that stage of its existence in which it is furnished with organs best adapted for the purpose; for, had the larva omitted taking this step, the consequence would have been, that the poor insect, when come to its butterfly state, would have been a prisoner, totally unable to make its escape, being unprovided with any instrument sufficiently powerful to make a hole in the shell; therefore, in this butterfly, it is absolutely necessary that a complete aperture should be left open; and as this is a circumstance which necessarily leaves the pupa exposed, it is not surprising that nature should seldom resort to such a proceeding in the case of internal-feeding insects. Perhaps even in this almost solitary instance, we may fairly imagine that the situation is sufficiently retired to insure them protection from many of their enemies. These chrysalides are attached horizontally upon the inner walls of the pomegranate, by means, first, of a patch of silk laid upon its surface, to the centre of which the tail of the chrysalis is affixed, and, second, of a slender silken thread, passing from side to side over the base of the abdominal segments. As to the manner in which the girthed suspension is effected after the larva has attached itself. I may be allowed to make the following short extract from Messrs. Kirby and Spence's third volume, p. 212. In this order of insects, which have several modus operandi, some of the larvæ which have a short and more rigid body (as Lycena Arque, and many more of the Papiliones rurales and urbicola), 'after having bent the head on one side so as to fix one end of the thread, bring themselves into a straight position, and, by a manœuvre not easily described, contrive to introduce the head under the thread, which they then bend themselves to fasten on the other side, pushing it to its proper situation by the successive tension and contraction of their segments.' A short time after this is effected, the skin of the caterpillar bursts, and its skin is gradually sloughed off beneath the girth, until the pupa is entirely naked; the exuvise being collected at the extremity of the abdomen.

Another curious instance of instinct yet remains to be noticed. The butterfly, so soon as ever it has escaped from the puparium, must make its escape out of the hole formed by the larva; delay would be death, as the wings would soon acquire their full expansion of nearly a couple of inches; in which state it would, of course, be unable to creep out.

In the chrysalis state, the belly of the insect is placed in contact with the inner surface of the fruit; consequently, as the slit by which the butterfly escapes out of the puparium extends along the back, the under surface of the latter remains entire, the anterior lateral portions on each side the slit (extending as far as the whole coverings of the wings) curling up and lying close upon those parts which had covered the breast and limbs, leaving the abdominal portion in the same form as when it inclosed the insect."

E. T. Downes, Esq., in the Calcutta Journal of Natural History, observes: "I am induced to call the attention of Entomologists to the caterpillar of the butterfly which is so destructive to the fruit of the pomegranate (Punicea granatum), as my observations regarding its habits do not correspond with the account given above. At the time the pomegranate is in flower, and at a very early period, the Hair Streak may be seen very busily occupied about the flowers, and I have little doubt that the eggs are deposited at the bottom of the calyx, from the position in which I have seen the abdomen of the butterfly placed; as the fruit enlarges, the eggs are inclosed, and in this situation matured. Recollecting the history of this insect, I determined to enjoy the pleasure of seeing it go through its various stages (the pomegranate-tree being close to my door). In order that I might obtain a perfect insect, I surrounded several of the fruit with fine gauze, but in such a manner as not in the least to interfere with the caterpillar in its labour of connecting the fruit and stalk by means of the web; but, to my astonishment and disappointment, this never took place; the caterpillars issued from the fruit, and, finding their escape impeded, underwent their change on the external part; and so soon as this was effected. I removed the fruit from the tree for the purpose of placing it in a musquito gause house in my room. Subsequently, I examined several of the fruit, but I never found any chrysalids, or the remains of any, inside the fruit. I was very careful in my observations, and I came to the conclusion that the caterpillars, in this instance, descried the fruit when ready to undergo their change; and I have no doubt of the butterfly being the same, viz., 'Thecla Isocrates.' "

- 43. DIPSAS MALIKA, Horsfield Sp. (Plate 1a, fig. 5).
 - Thecla Malika, Horsfield, Cat. Lep. Mus. E.I.C. p. 90 (1829).
 - Dipsas Malika, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 11.
 - a. d. Java. From Dr. Horsfield's Collection.
- 44. DIPSAS KESSUMA, Horsfield Sp.
 - Thecla Kessuma, Horsfield, Cat. Lop. Mus. E.I.C. p. 89 (1829).
 - Dipsas Kessuma, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 10.
 - a. Q. Java. From Dr. Horsfield's Collection.
- 45. DIPSAS NASAKA, Horsfield Sp.
 - Thecla Nasaka, Horsfield, Cat. Lep. Mus. E.I.C. p. 91 (1829).
 - Dipsas Nasaka, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 8.
 - a. d. Java. From Dr. Horsfield's Collection.
- 46. DIPSAS VARUNA, Horsfield Sp.
 - Thecla Varuna, Horsfield, Cat. Lep. Mus. E.I.C. p. 91 (1829).
 - Dipsas Varuna, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 480, No. 9.
 - a. b. d. Java. From Dr. Horsfield's Collection.

Genus APHNÆUS, Hübner.

APHNEUS, Hübner, Verz. bek. Schmett. p. 81 (1816). Zeritis, Boisdweal, MS.

- 47. APHNÆUS PINDARUS, Fabricius Sp.
 - Hesperia Pindarus, Fabricius, Ent. Syst. III. pt. I. p. 262 (1793). Donovan, Ins. Ind. t. 38, f. 2.
 - Aphneus Pindarus, E. Doubloday, List Lop. Brit. Mus. pt. II. p. 26.
 - Amblypodia Pindarus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 479, No. 28.

Zeritis Brahmina, Boisdweal, MS.

- a. J. N. India. Presented by the Trustees of the British Museum.
- b. d. N. India. From Mr. Argent's Collection.
- c. J. N. India. Presented by Lieutenant Hugo James, 44th Beng. N. I.
- d. 2. Canara. Presented by S. N. Ward, Esq.

48. APHNÆUS ETOLUS, Cramer Sp.

- Papilio Etolus, Oramer, Pap. Exot. t. 208, f. E.F. (1782) (nec. Fabr.).
 - Papilio Vulcanus, Fabricius, Mant. Ins. II. p. 66 (1787). Donovan, Ins. Ind. t. 38, f. 3.
 - Aphnæus Vulcanus, Hübner, Verz. bek. Schmett. p. 81. E. Doubleday, List Lep. Brit. Mus. pt. II. p. 26.
 - Polyommatus Vulcanus, Godart, Enc. Méth. IX. p. 644.
 - Amblypodia Vulcanus, Horsfield, Cat. Lep. Mus. E.I.C. pp. 106, 107. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 479, No. 27.
- a. b. J. India. From the Asiatic Society of Bengal.
- c. d. Canara. Presented by S. N. Ward, Esq.
- d. ?. Calcutta. Presented by Colonel Buckley.
- e. 9. Java. From Dr. Horsfield's Collection,

49. APHNÆUS LOHITA, Horsfield Sp.

Amblypodia Lohita, Horefield, Cat. Lep. Mus. E.I.C. pp. 106, 107 (1829). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 479, No. 19.

a. b. & ?. Java. From Dr. Horsfield's Collection.

50. APHNÆUS SYAMA, Horefield Sp.

Amblypodia Syama, Horefield, Cat. Lep. Mus. E.I.C. pp. 107, 108 (1829). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 479, No. 20.

a. b. & ?. Java. From Dr. Horsfield's Collection.

Genus AMBLYPODIA, Horsfield.

AMBLYPODIA, Horsfield, Cat. Lep. Mus. E.I.C. p. 98 (1828). Westwood, Diurn. Lep. p. 478.

ARHOPALA, Boisduval.

DIPSAS, p. E. Doubleday.

51. AMBLYPODIA NARADA, Horsfield.

Amblypodia Narada, Horefield, Cat. Lop. Mus. E.I.C. p. 98, t. 1, f. 8; t. 4, f. 4, 4a (1829). Doubleday, List Lop. Brit. Mus. pt. II. p. 23. Westwood, in Doubleday and Hewitson's Diurnal Lop. p. 478, No. 9.

Thecla Talazala, Boisduval, MS. Mus. E.I.C.

- a. 9. Java. From Dr. Horsfield's Collection.
- b. S. Java. From Mr. Argent's Collection.

The larva and pupa of A. Narada are figured on Plate 1, fig. 4, 4a.

52. AMBLYPODIA VIVARNA, Horsfield.

Amblypodia Vivarna, Horsfield, Cat. Lep. Mus. E.I.C. p. 99 (1829). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 479, No. 10.

- a. b. ♂ ♀. Java. From Dr. Horsfield's Collection. c. ♂. Java. From Mr. Argent's Collection.
- 53. AMBLYPODIA APIDANUS, Cramer Sp.

Papilio Apidanus, Cramer, Pap. t. 137, f. F.G. & (1779). Fabricius, Mant. Ins. II. p. 69 (1787).

- 3 Amblypodia Apidanus, Horefield, Cat. Lep. Mus. E.I.C. p. 100. Doubleday, List Lep. Brit. Mus. pt. II. p. 24. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 3.
 - Hesperia Apidanus, Fabricius, Ent. Syst. III. pt. L p. 280.
 - Polyommatus Apidanus, Godart, Enc. Méth. IX. p. 652. Papilio Dorimond, Stoll, Suppl. to Cramor's Pap. t. 87, f. 4, 4D. 2 (1791).
 - a. b. c. d. e. f. & ?. Java. From Dr. Horsfield's Collection.
 - g. h. & ?. Borneo. Presented by Hugh Lowe, Esq.

"In Java, the larva of Ambl. Apidamus feeds on the leaves of several species of Eugenia and Calyptronthes. It occurred not unfrequently, and was from time to time undergoing its change in my breeding-cages."—(Horsfield.)

The larva and pupa are figured on Plate 1, fig. 5, 5a.

54. AMBLYPODIA CENTAURUS, Fabricius Sp.

Papilio Centaurus, Fabricius, Mant. Ins. II. p. 68 (1787).

Amblypodia Centaurus, Doubleday, List Lep. Brit. Mus. pt. II. p. 24. Westwood, in Doubleday and Hewitcon's Diurnal Lep. p. 478, No. 1.

- Polyommatus Centaurus, Godart, Enc. Méth. H. N. IX. p. 658.
- a. b. 3 ?. Cherra Poonjee. c. ?. Silhet. Presented by Colonel Buckley.
- c. d. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

55. AMBLYPODIA PSEUDO-CENTAURUS, Doubleday.

Amblypodia Pseudo-Centaurus, Doubleday, List. Lep. Brit. Mus. pt. II. p. 24 (1847). Westwood, in Daubleday and Hewitson's Diurnal Lep. p. 478, No. 2.

- 3 Amblypodia Centaurus, Horefield, Cat. Lep. Mus. E.I.C. p. 102 (nec. Fabr.).
 - a. b. c. 3 ?. Java. From Dr. Horsfield's Collection.

56. AMBLYPODIA SILHETENSIS, Boisduval Sp.

Thecla silhetensis, Boisduval, Sp. Gén. II. (ined.).

Amblypodia silhethensis, Doubleday, List Lep. Brit. Mus. pt. II. Suppl. p. 36 (1847).

a. b. 3 ?. Silhet. Presented by Colonel Buckley.

57. AMBLYPODIA HELUS, Cramer Sp.

d Papilio Helus, Cramer, Pap. t. 201, f. F. G. (1782).

Amblypodia Helus, Horsfield, Cat. Lep. Mus. E.I.C. p. 103. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 4.

Polyommatus Helus, Godart, Enc. Méth. H. N. IX. p. 652. Lucas, Hist. Nat. Lep. Exot. t. 44, f. 4.

a. d. Java. From Dr. Horsfield's Collection.

58. AMBLYPODIA CAMDEO, Doubleday (Plate 1a, fig. 6).

Amblypodia Camdeo, Doubleday, List Lap. Brit. Mus., pt. II. p. 24 (1847).

- a. b. o 9. N. India. Presented by Colonel Sykes.
- c. d. d. Silhet. Presented by Colonel Buckley.
- e.f. & 2. Darjeeling. From Messrs. Schlagintweit's Collection.

Amblypodia Camdeo .- Male, UPPER-SIDE pale violet-blue, with a whitish tint in the centre, and a dark mark at the end of the discoidal cell of the fore-wing; extreme edge of anterior margin of fore-wing, ciliæ, tail, and a short tuft at anal angle, dark brown. UNDER-SIDE buff-brown; fore-wing having near the base of discoidal cell a small blackish spot, then a longer square one, and parallelly beyond this another squarish undulated spot; then a series of seven oval and lunate spots across the wing, one between each veinlet, also some irregular-shaped spots disposed at the posterior side of the median vein, all these being encircled by a narrow white band; near and parallel with the exterior margin are two series of pale white marks, the space between these being of a darkish brown. Hind-wing with five black spots near the base (these spots on both wings forming a circle); beyond these are three, then two, and afterwards a series of somewhat smaller spots, this series ending upwards to abdominal margin in a long narrow mark, all being encircled as those in forewing; near and parallel with the exterior margin are markings as in fore-wing; near anal angle are disposed some patches of black and metallic blue.

Female, UPPER-SIDE bright cyaneous, with a broad anterior and exterior margin to both wings; anal angle with two or three cyaneous lunar-shaped marks; abdominal margin in both sexes of a creamy colour; body dark brown. UNDER-SIDE as in the male. Expanse of wings $2\frac{\alpha}{\hbar}$ in.

59. AMBLYPODIA EUMOLPHUS, Cramer Sp.

- ¿ Papilio Eumolphus, Cramer, Pap. Exot. III. t. 299, f. G.H. (1782).
- 3 Amblypodia Eumolphus, Horefield, Cat. Lep. Mus. E.I.C.
 p. 103. Doubleday, List Lep. Brit. Mus. pt. II.
 p. 24. Westwood, in Doubleday and Hewitson's
 Diurnal Lep. p. 478, No. 8.

- Polyommatus Eumolphus, Godart, Enc. Méth. H.N. IX. p. 652.
- a. b. 3 ?. Java. From Dr. Horsfield's Collection.
- 60. AMBLYPODIA RAMA, Kollar Sp.
 - Thecla Rama, Kollar, in Hügel's Kaschmir, IV. pt. II.
 p. 412, t. 4, f. 1, 2 (1844).
 - a. d. Canara. Presented by S. N. Ward, Esq.
 - b. 9. N. India. Presented by Colonel Sykes.
- 61. AMBLYPODIA PERIMUTA, Boisduval.
 - Amblypodia Perimuta, Boisduval, MS. E. Doubleday, List of Lep. Brit. Mus. pt. II. p. 24.
 - a. J. Silhet. Presented by the Trustees of the British Museum.
- A. Perimuta.—UPPER-SIDE of the male glossy purple, with a narrow black border on exterior margins. UNDER-SIDE brown, glossed over with purple; fore-wing with two oval marks and an undulating line of a paler colour; hind-wing with a broad, uneven, and indistinctly-defined fascia of a creamy colour crossing from the anterior to abdominal margin, these wings being also marked with several oval and undulating lines; fore-wing pointed at the anterior angle; hind-wings rounded, without tails. Expanse of wings 1_{19}^{19} in.
- 62. AMBLYPODIA EPIMUTA, Boisduval.
 - Amblypodia Epimuta, Boieduval, MS. E. Doubleday, Liet Lep. Brit. Mus. pt. II. p. 24.
 - a. d. Borneo. Presented by Hugh Lowe, Esq.
- A. Epimuta.—UPPER-SIDE of the male wholly glossy purple. UNDER-SIDE brown, and covered with a series of undulating lines; anal angle of hind-wing with a patch of metallic blue. Wings somewhat rounded. Without tails. Expanse of wings $1\frac{1}{10}$ in.
- 68. AMBLYPODIA QUERCETORUM, Boisdawal (Plate 1a, fig. 7).
 - Amblypodia Quercetorum, Boisdural, MS. Doubleday, List Lep. Brit. Mus. pt. II. p. 25 (1847).

- a. J. Silhet. Presented by the Trustees of the British Museum.
- b. c. d. N. India. Donor unknown.
- A. Quercetorum.—UPPER-SIDE dark brown; centre of wings deep purple. UNDER-SIDE brown; fore-wing with a series of small dark spots near the exterior margin, then an undulating line, and towards the base some indistinct spots; hind-wing with a dark brown fascia running from the anterior angle across to middle of abdominal margin; an undulating dark line near exterior margin, and two small whitish elongated spots near anterior margin; anterior and posterior angle of fore-wing pointed; hind-wing with the anal angle elongated. Expanse of wings 15 in.

64. AMBLYPODIA QUERCETI, Boisduval.

Amblypodia Querceti, Boisduval, MS. Doubleday, List Lep. Brit. Mus. pt. II. p. 25 (1847).

- a. b. c. d. e. ♂ ♀. N. India. Presented by Colonel Buckley.
- A. Querceti.—Male, UPPER-SIDE purple; fore-wing with broadish brown exterior margin commencing from middle of anterior margin; hind-wing with broad brown margins. Female, UPPER-SIDE with discoidal cell and posterior base of fore-wing, and middle of hind-wing, purple, the disc of fore-wing being somewhat lighter and pinky; the rest of the wings brown. UNDER-SIDE greyish-brown, slightly rufescent on fore-wing; an undulating broad band of rufescent brown crosses the fore and hind-wings, another inwardly on the latter half across the wing, then two or three spots; near exterior margin of both wings is an indistinct angulated line; fore-wing angulated exteriorly; hind-wing rounded; tail, one. Expanse of wings 1; in.
- 65. AMBLYPODIA DODONÆA, Boisduval (Plate 1a, fig. 8).

Amblypodia Dodonsea, Boisduval, MS. Doubleday, List Lep. Brit. Mus. pt. II. p. 25 (1847).

- a. b. c. d. Q. N. India. Presented by Colonel Buckley.
- A. Dodonæa.—Female, UPPER-SIDE, fore-wing with discoidal cell and posterior base blue, palest in the centre of disc, and intersected by dark veinlets, the rest of wing dusky-brown; bind-wing with

centre, blue; outer margin brown; anterior and abdominal margins paler. Under-side dark cream-colour; fore-wing paler posteriorly, with an ill-defined band near outer margin, then a broad undulating band, and some spots of a darker shining tint; hind-wing also with an ill-defined but more angulated band near outer margin, then two series of undulating lines, and also spots at base of wing. Shape of wings as in A. Querceti, but exterior margin of fore-wing more angulated. Expanse of wings 1% in.

66. AMBLYPODIA GANESA, Moore (Plate 1a, fig. 9).

A. Ganesa, n. sp.—UPPER-SIDE, fore-wings, with discoidal cell and posterior base, sky-blue; the end of discoidal cell and between discoidal veinlets white; rest of wing dark brown; hind-wing sky-blue to near exterior margin, rest brown; abdominal margin and ciliæ paler. UNDER-SIDE cream-white; fore-wings nearly covered with broad undulating brown bands; hind-wings with ill-defined undulating bands; near outer margin of both wings appear a very faint undulated line and a series of dots. Wings shaped as in A. Querceti and A. Dodonæa. Without tails. Expanse of wings 1½ in.

a. b. c. d. N. India. Presented by Colonel Buckley.

67. AMBLYPODIA TIMOLEON, Stoll Sp.

Papilio Timoleon, Stoll, Suppl. to Cramer, Pap. t. 32, f. 4, 4D (1791).

Amblypodia Timoleon, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 23.

Theela Nila, Kollar, in Hügel's Kaschmir, p. 413, t. IV. f. 5, 6 (1844), (nec. Th. Nila, Horsf.).

Amblypodia Lyco, Doubleday, List Lep. Brit. Mus. pt. II. p. 23 (1847).

a. d. Bootan. (A. Lyco, Doubleday.) From Pemberton's Collection.

68. AMBLYPODIA ROCHANA, Horsfield (Plate 1a, f. 10).

S Amblypodia Rochana, Horefield, Cat. Lep. Mus. E.I.C. p. 108 (1829).

Thecla Timoleon, Boisdural, Sp. Gén. Lép. t. 22, f. 4?

a. d. Java. From Dr. Horsfield's Collection.

69. AMBLYPODIA VIDURA, Horsfield.

- d' Amblypodia Vidura, Horsfield, Cat. Lep. Mus. E.I.C. p. 113, t. 1, f. 6, 6a (1829). E. Doubleday, List Lep. Brit. Mus. pt. II. p. 23. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 18.
 - a. J. Java. From Dr. Horsfield's Collection.

70. AMBLYPODIA LONGINUS, Fabricius Sp.

Hesperia Longinus, Fabricius, Ent. Syst. V. p. 430 (1798).

Amblypodia Longinus, Doubleday, List Lep. Brit. Mus. pt. II. p. 23. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 16.

Polyommatus Longinus, Godart, Enc. Méth. IX. p. 634. Lucas, Lep. Exot. t. 44, f. 3.

Bithys Longinus, Hübner, Zuträge, f. 933, 934 (1837).

a. b. c. ♂ ♀. N. India. Presented by the Asiatic Society of Bengal.

71. AMBLYPODIA PSEUDOLONGINUS, Doubleday.

Amblypodia Pseudolonginus, Doubleday, List Lep. Brit. Mus. pt. 11. p. 23 (1847). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 17.

- 3 Amblypodia Longinus, Horefield, Cat. Lep. Mus. E.I.C. p. 110, t. 1, f. 7 (nec. Fabr.).
 - a. b. c. d. e. f ?. Java. From Dr. Horsfield's Collection.

"The larva of Amblyp. Pseudolonginus feeds on the leaves of a species of Loranthus, and was observed in the month of February."
—(Horsfield, MS.)

The larva and pupa of A. Pseudolonginus are figured on Plate 1, fig. 6, 6a.

72. AMBLYPODIA HYPATADA, Boisduval Sp.

Thecla Hypatada, Boisduval, MS.

Myrina Hypatada, Doubleday, List Lep. Brit. Mus. pt. II. p. 23.

a. b. d. N. India. Presented by Colonel Buckley.

A. Hypatada.—Male, UPPER-SIDE, fore-wing, with discoidal cell, posterior base to posterior angle, brilliant light sky-blue; rest of wing dark brown; hind-wing brilliant light sky-blue, with brown cilise; abdominal margin cream-colour. Under-side light creamy-brown, with a well-defined narrow undulating band of reddish-brown crossing the fore and hind-wings, terminating abdominally in a zigzag manner on the latter; near exterior margins an indistinct line; near anal angle two black spots, bordered anteriorly with red, and posteriorly with powdered white. Tails broken off. Expanse of wings 1.5 in.

73. AMBLYPODIA NISSA, Kollar Sp.

Thecla Nissa, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 412, t. 4, f. 3, 4 (1844).

a. b. c. ♂ ♀. N. India. Presented by Colonel Buckley.

74. AMBLYPODIA DEVA, Moore.

Ambl. Dova, n. s.—Male, UPPER-SIDE, fore-wing, with discoidal cell and posterior base, brilliant deep blue, intersected by the dark median and submedian veinlets; costal margin and anterior half of wing to beyond posterior angle dark brown; hind-wing, with the centre from the base, brilliant deep blue; a broad anterior and narrow exterior margin of dark brown; along the exterior margin are disposed some blackish marks; a black spot at the anal angle, surrounded with whitish; abdominal margin pale brown; tails two, brown; ciliæ whitish. UNDER-SIDE cream-colour, with a series of interrupted marks disposed in an undulating line across the fore and hind-wings, and terminating in a zig-zag manner abdominally; anal angle with a black spot, bordered anteriorly with red, and another of the same a short distance off on the exterior margin. Female, UPPER-SIDE paler blue, and with lighter brown margins. Expanse of wings in male 14 in.; female 14 in.

a. b. 3 2. Canara. Presented by S. N. Ward, Esq.

75. AMBLYPODIA JANGALA, Horsfield (Plate 1a, f. 11).

9 Amblypodia Jangala, Horsfield, Cat. Lep. Mus. E.I.C. p. 113 (1829). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 22.

- a. Q. Java. From Dr. Horsfield's Collection.
- b. c. J. Darjeeling. From the Indian Collection, Exposition Universelle at Paris, 1855.
- A. Jangala.—Male, UPPER-SIDE brownish-black, with the discoidal cell and posterior base of the fore-wing and centre of hind-wing shining indigo-blue.

Genus MYRINA, Godart.

MYRINA, Godart, Enc. Méth. IX. p. 592 (1819).

76. MYRINA JAFRA, Godart.

Myrina Jafra, Godart, Enc. Méth. IX. p. 592 (1819).

Horsfield, Cat. Lep. Mus. E.I.C. p. 118, t. 11,
f. 5, 5a. Lucas, Hist. Nat. Lep. Exot. t. 43, f. 4.

Guérin-Méneville, Icon. Règ. An. Ins. p. 489, t. 81,
f. 3. Doubleday, List Lep. Brit. Mus. pt. II. p. 21.

Westwood, in Doubleday and Hewitson's Diurnal
Lep. p. 476, No. 1.

a. b. c. of a. Java. From Dr. Horsfield's Collection.

77. MYRINA ACTE, Doubleday.

Myrina Acte, Doubleday, List Lep. Brit. Mus. pt. II. p. 21 (1847).

- a. N. India. Presented by the Trustees of the British Museum.
- b. c. N. India. Presented by Lieutenant Hugo James, 44th Bengal N. I.

M. Acte.—UPPER-SIDE dark smoky-brown; hind-wing with three spots of white near anal angle; tail and anterior margin whitish. UNDER-SIDE reddish chrome-yellow, with an indistinct undulating line crossing the fore and hind-wings, terminating abdominally on the latter in separate lighter spots; near anal angle brownish, with two black spots bounded anteriorly with metallic blue. Expanse of wings-11 in.

78. MYRINA THARIS, Hübner Sp.

Oxylides Tharis, Hübner, Zutr. f. 883, 884 (1837).

Myrina Tharis, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 476, No. 12.

- Myrina Pharis, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 22 (1847); Diurnal Lep. t. 74, f. 3.
 - a. India. Presented by the Trustees of the British Museum.

M. Tharis.—UPPER-SIDE brown; fore-wing with a broad band from angle of abdominal margin across the wing to middle of exterior margin; a spot near to, and the margin of anal angle, tails and broad cilie pure white. UNDER-SIDE, with fore-wing chrome-red; basal half of hind-wing slightly paler; anal half white, with patches of black disposed at anal angle and between the veinlets along exterior margin; across the wing, from abdominal margin to near anterior angle (separating the red and white colours), is a zig-zag line. Expanse of wing $1\frac{1}{2}$ in.; middle tail $\frac{1}{2}$ in.

79. MYRINA LAPITHIS, Boisduval Sp.

Thecla Lapithis, Boisduval, MS. (1847).

Amblypodia Lapithis, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 23 (1847).

a. Moulmein. Presented by the Trustees of the British Museum.

M. Lapithis.—UPPER-SIDE glossy-brown; anal part of hind-wing tail, and ciliæ, white, with a patch of light glistening blue at anal angle and between median veinlets. Under-side, fore-wing chrome-yellow, darker on anterior half; a white fascia from middle of anterior margin, spreading widely across to posterior margin, and bordered by blackish; three separate blackish short lines across the anterior half of the wing; hind-wing white; extreme base and anterior angle yellow; at base and in centre of wing are disposed several spots and short lines of black; anal angle black; a black spot at angle on exterior margin, these being bounded anteriorly with metallic silvery-green, and then yellow. Expanse of wings 14 in.

80. MYRINA LISIAS, Fabricius Sp.

Papilio Lisias, Fabricius, Mant. Ins. 11. pp. 65, 261 (1787); Ent. Syst. 111. pt. 1. p. 261.

Myrina Lisias, Godart, Enc. Méth. IX. p. 593. Boisdwoal, Sp. Gén. I. t. 22, f. 2. E. Doubleday, List Lep. Brit. Mus. pt. II. p. 21. Westwood, in

Doubleday and Hewitson's Diurnal Lep. p. 476, No. 3.

a. 2. Moulmein. Presented by the Trustees of the British Museum.

81. MYRINA TRIOPAS, Cramer Sp.

Papilio Triopas, Cramer, Pap. Exot. IV. t. 820, f. G.H. (1782).

Papilio Amor, Fabricius, Mant. Ins. II. p. 65 (1787). Herbst, Pap. t. 302, f. 9, 10.

Myrina Amor, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 476, No. 4.

Polyommatus Amor, Godart, Enc. Méth. IX. p. 620.

Zephyrius Amor, Guérin-Méneville, Icon. Règ. An. Ins. p. 490, t. 81, f. 6.

a. Canara. Presented by S. N. Ward, Esq., E.I.C.C.S.

82. MYRINA ETOLUS, Fabricius Sp.

Papilio Etolus, Fabricius, Mant. Ins. II. p. 66 (1787); Ent. Syst. III. pt. I. p. 264 (nec. Cramer, 1782).

Myrina Etolus, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 22. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 476, No. 9.

Polyommatus Etolus, Godart, Enc. Méth. IX. p. 639.

Amblypodia Etolus, Horsfield, Cat. Lep. Mus. E.I.C. p. 115, t. 1, f. 9.

a. J. Java. From Dr. Horsfield's Collection.

b. c. 3 9. Dukhun. Presented by Colonel Sykes.

d. J. Silhet. Presented by Colonel Buckley.

83. MYRINA AMYNTOR, Herbst Sp.

Papilio Amyntor, Herbst, Pap. t. 300, f. 5, 6.

Myrina Amyntor, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 21. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 476, No. 15.

- a. b. c. 3 ?. N. India. From Mr. Argent's Collection.
- d. 9. Silhet. Presented by Colonel Buckley. П

VOL. I.

84. MYRINA ERYLUS, Godart Sp.

- Polyommatus Erylus, Godart, Enc. Méth. IX. p. 633 (1819).
- Myrina Erylus, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 22. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 476, No. 14.
- Amblypodia Erylus, Horsfield, Cat. Lep. Mus. E.I.C. p. 111.
- a. b. c. ♂ ♀. Java. From Dr. Horsfield's Collection.
- d. J. Silhet. Presented by the Trustees of the British Museum.
- e. d. India. From Mr. Argent's Collection.

85. MYRINA JALINDRA, Horsfield Sp.

- Amblypodia Jalindra, Horsfield, Cat. Lep. Mus. E.I.C. p. 109 (1829). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 478, No. 21.
- Polyommatus Nedymond, Godart, Enc. Méth. IX. p. 634 (1819) (nec. Cramer).
- a. 9. Java (type). From Dr. Horsfield's Collection.
- b. J. Silhet. Presented by Colonel Buckley.
- c. ?. Canara. Presented by S. N. Ward, Esq.
- M. Jalindra.—Male, UPPER-SIDE varying violet-blue; exterior margin of fore-wing, and anterior, exterior, and abdominal margin of hind-wing, brown; anal angle whitish. UNDER-SIDE as in female.

86. MYRINA NEDYMOND, Cramer Sp.

- 3 Papilio Nedymond, Cramer, Pap. Exot. III. t. 299, f. E.F. (1782), (nec. Godart, Enc. Méth.).
 - Myrina Nedymond, E. Doubleday, List of Lep. Brit.

 Mus. pt. II. p. 22. Westwood, in Doubleday and

 Hewitson's Diurnal Lep. p. 476, No. 7.
 - Thecla Nedymond, Horsfield, Cat. Lep. Mus. E.I.C. p. 96 (1829).
- a. b. J. Java. From Dr. Horsfield's Collection.

87. MYRINA CHITRA, Horsfield Sp.

- Thecla Chitra, Horsfield, Cat. Lep. Mus. E.I.C. p. 97,
 t. 1, f. 5 (1829).
 - Myrina Chitra, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 22. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 476, No. 8.
- a. b. Q. Java. From Dr. Horsfield's Collection.

88. MYRINA RAVINDRA, Horsfield.

- 3 Myrina Ravindra, Horsfield, Cat. Lep. Mus. E. I. C. p. 117, t. 1, f. 11, 11a (1829). Doubleday, List Lep. Brit. Mus. pt. II. p. 22. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 476, No. 5.
 - a. b. c. d. 3 2. Java. From Dr. Horsfield's Collection.

89. MYRINA SUGRIVA, Horsfield Sp. (Plate 1a, fig. 12).

Amblypodia Sugriva, Horsfield, Cat. Lop. Mus. E.I.C. p. 105, t. 1, f. 10, 10a (1829).

Myrina Sugriva, E. Doubleday, List Lop. Brit. Mus. pt. II. p. 21. Westwood, in Doubleday and Hewitson's Diurnal Lop. p. 476, No. 2.

a. Java. From Dr. Horsfield's Collection.

Genus LOXURA, Horsfield.

LOXUBA, Horsfield, Cat. Lep. Mus. E.I.O. p. 119 (1829). Westwood, Diurn. Lep. p. 475.

MARMESSUS, p. Hübner.

MYRINA, p. Godart.

90. LOXURA ATYMNUS, Cramer Sp.

Papilio Atymnus, Cramer, Pap. Exot. IV. t. 331, f. D.E. (1782).

Loxura Atymnus, Horefield, Cat. Lep. Mus. E. I. C. p. 121. Boisduval, Sp. Gén. Lép. I. t. 7, f. 3; t. 11, f. 6, 6a. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 475. Kollar, in Hügel's Kaschmir, p. 411.

Hesperia Atymnus, Fabricius, Mant. Ins. II. p. 70 (1787); Ent. Syst. III. pt. I. p. 283.

Myrina Atymnus, Godart, Enc. Méth. IX. p. 594. E. Doubleday, List Lep. Brit. Mus. pt. II. p. 21.

Papilio Atymnus, Donovan, Ins. of India, t. 39, f. 1.

Marmessus Atymnus, Hübner, Verz. bek. Schmett. n. 828.

- a. b. c. d. e. & Q. Java. From Dr. Horsfield's Collection.
- f. g. h. N. India. Presented by Colonel Buckley.
- i. Canara. Presented by S. N. Ward, Esq.

The female of this species, according to the observation of Dr. Horsfield, "can be distinguished only by the structure of the anterior tarsi."

91. LOXURA SURYA, Moore (Plate 1a, fig. 13).

- L. Surya, n. sp.—Differs from L. Atymnus in having the fulvous colour of the UPPEB-SIDE more intense and brighter; the blackish-brown border of the fore-wing is also darker, and which extends to the base of the wing, occupying the whole space between the costal vein and anterior margin; a patch of blackish-brown near base of anterior margin of hind-wing, abdominal margin brown. UNDER-SIDE dark ochreous.
 - a. Canara. Presented by S. N. Ward, Esq.

92. LOXURA PITA, Horsfield.

Q Loxura Pita, Horefield, Cat. Lep. Mus. E.I.C. p. 122 (1829). Westwood, in Doubleday and Hewitson's Diurnal Lep. t. 74, f. 1, 2, p. 472.

Myrina Pita, E. Doubleday, List Lep. Brit. Mus. p. 21.

a. ?. Java. From Dr. Horsfield's Collection.

Genus ANOPS, Boisduval.

Anors, Boisduval, Sp. Gén. Lép. I. p. 6 (1836). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 473.

PHEDBA, Horsfield, Cat. Lep. Mus. E.I.C. p. 124 (1829).

93. ANOPS THETYS, Drury Sp.

Papilio Thetys, Drusy, Ill. Inc. t. 9, f. 3, 4 (1770). Cramer, Pap. Exot. III. t. 238, f. D.

- Anops Thetys, Doubleday, List Lep. Brit. Mus. II. p. 20.
- ¿ Papilio Phædrus, Fabricius, Mant. Ins. II. p. 79 (1787);
 Syst. Ent. III. pt. I. p. 307.
 - Anops Phædrus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 473.
 - Polyommatus Phædrus, Godart, Enc. Méth. Hist. Nat. IX. p. 675.
- 3 Candalides Phædrus, Hübner, Verz. bek. Schmett. n. 720 (1816).
- Papilio Æsopus, Fabricius, Mant. Ins. II. p. 79; Syst. Ent. III. pt. I. p. 307.
 - Curetis Æsopus, Hübner, Verz. n. 1070 (1816).
- 3 ? Phædra terricola, Horsfield, Cat. Lop. Mus. E.I.C. p. 124 (1829).
 - a. b. J. N. India. Purchased.
 - c. ?. Canara. Presented by S. N. Ward, Esq.
- 94. ANOPS INSULARIS, Horsfield Sp. (Plate 1a, fig. 14).
 - J Phwdra insularis, Horefield, Cat. Lop. Mus. E. I. C., p. 125 (1829).
 - Anops insularis, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 473.
 - a. J. Java. From Dr. Horsfield's Collection.
- 95. ANOPS CINYRA, Cramer Sp.
 - d Papilio Cinyra, Cramer, Pap. Exot. III. t. 238, f. C. (1782).
 - Candalides Phædrus, apud Hübner, Zuträge, f. 263, 264 (nec. Fabr.).
 - a. b. J. Java. From Dr. Horsfield's Collection.

In the three preceding species the hind-wings are more rounded than in A. Bulis and A. Santana.

- 96. ANOPS BULIS, Boisduval.
 - 3 Anops Bulis, Boisduval, MS. (1847). E. Doubleday, List Lep. pt. II. p. 21. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 473, t. 75, f. 5 (1852).

- a. d. Bootan. From Pemberton's Collection.
- b. c. d. Silhet. Presented by Colonel Buckley.
- d. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- e. d. N. India. Donor unknown.

The female of this species may be distinguished by the white patches on the UPPER-SIDE of both wings being larger; the forewings having a disco-cellular dentiform mark of black. UNDER-SIDE silvery creamy-white, and having a darkish band running from anterior angle of fore-wing in a straight line to anal angle of hind-wing, the whole surface of the under-side being covered with very minute dark-brown dots.

97. ANOPS SANTANA, Moore.

Anops Phædrus, apud Boisduval, Spéc. Gén. Lép. I. t. 28, f. 1.

- a. J. Java. From Dr. Horsfield's Collection.
- b. c. J. Java. From Mr. Argent's Collection.

Stirps II., with CHILOGNATHIFORM or JULIFORM Larva.

CHILOGNATHIFORM OF JULIFORM (part), Horsfield, Cat. Lep. Mus. E.I.C. pp. 38, 127 (1828). Swainson, Cabinet Cyclop. pp. 58, 63 (1840).

A. PAPILIO (part), Linnaus-Danai candidi.

B. Papilio (part), Linnaus-Equites, Troes et Achivi.

A.

Papiliones (part), Horsfield, Cat. Lep. Mus. E.I.C. p. 59 (1828).

Piérides, Boisduval, Hist. Gén. des Lép. Amér. Sep. p. 2 (1829);
id. Spéc. Gén. Lép. I. pp. 163, 402 (1836); id. Index Méth.

Europ. Lép. p. 4 (1840). Westwood, Introd. to Mod. Class.

Ins. II. p. 349; Syn. p. 87 (1840).

Collades, Boisduval, Hist. Gén. des Lép. Amér. Sep. p. 2 (1829).

PIERINE et COLIANE, Swainson, Cabinet Cyclop. pp. 87-9 (1840).

PIERIDE, Dup. C. p. 23 (1846). E. Doubleday, Diurnal Lop. p. 32.

RHODOCEBIDE, Dup. С. р. 26 (1846).

Pieridi, Stephens, Cat. Brit. Lep. Brit. Mus. p. 3 (1850). Stainton, Manual Brit. Butt. pp. 12, 15 (1856).

Rhodocebidi, Stephens, Cat. Brit. Lep. Brit. Mus. p. 2 (1850).

LEP. HEXAPODA (part), Latreille, Règ. Anim. V. p. 374 (1829).

Papilionide (part), Swainson, Cabinet Cyclop. p. 86 (1840). Stainton, Manual Brit. Butt. pp. 10, 12 (1856).

DANAI FLAVI, MM. Denis et Schieffermüller, Wien. Verz. p. 104 (1776).

Genus CALLIDRYAS, Boisduval.

CALLIDRYAS, Boisduval, Hist. Gén. et Icon. des Lép. et Chen. Amér. Sep. p. 73 (1829); id. Spéc. Gén. Lép. I. p. 607. Doubleday, Diurnal Lep. p. 66.

Colias, Horsfield, Cat. Lep. Mus. E.I.C. p. 128 (1829).

CATOPSILIA, MURTIA, PHŒBIS, COLOTIS, Hübner, Verz. (1816).

98. CALLIDRYAS PYRANTHE, Linnœus Sp.

- Papilio Pyranthe, Linnaus, Syst. Nat. II. p. 763 (1767). Fabricius, Spec. Ins. II. p. 44 (1781).
- Callidryas Pyranthe, Boisduval, Spéc. Gén. Lép. I. p. 611 (1836). Doubleday, List Lep. Brit. Mus. pt. I. p. 38 (1844); id. Diurnal Lep. p. 67.
- Colias Pyranthe, Godart, Enc. Méth. IX. p. 97 (1819). Horsfield, Cat. Lep. Mus. E.I.C. p. 129.
- Papilio Chryseis, Drury, Ins. I. t. 12, f. 3, 4 (1770).
- Papilio Gnoma, Fabricius, Spec. Ins. II. p. 50; id. Syst.
 Ent. App. p. 828 (1775); Ent. Syst. III. pt. I.
 p. 210.
- Papilio Nephte, Fabricius, Ent. Syst. III. pt. I. p. 190 (1793).
- Papilio Alcyone, Cramer, Pap. I. t. 58, f. A. B. C. (1779).
- a. b. 3 9. Java. From Dr. Horsfield's Collection.
- c. d. & Q. Pinang. Presented by Dr. Cantor, 1844.

The larva and pupa of *C. Pyranthe* are figured on Plate 1, fig. 8, 8a, discovered in Ceylon by E. L. Layard, Esq., from whose drawings our figures are copied.

99. CALLIDRYAS PHILIPPINA, Cramer Sp.

Papilio Philippina, Cramer, Pap. t. 361, f. C.D. (1782).

- Callidryas Philippina, Boisduval, Spéc. Gén. Lép. I. p. 609 (1836). Doubleday, List Lep. Brit. Mus. pt. I. App. p. 147; Diurnal Lep. p. 67 (1847).
- Colias Philippina, Hübner, Verz. bek. Schmett. p. 99 (1816). Godart, Enc. Méth. IX. p. 96 (1819). Horsfield, Cat. Lep. Mus. E.I.C. p. 130 (1829).
- a. b. c. d. 3 9. India. From the Asiatic Society of Bengal.

100. CALLIDRYAS ALCMEONE, Cramer Sp.

- Papilio Alcmeone, Cramer, Pap. II. t. 141, f. E. (1779).
 Fabricius, Spec. Ins. II. p. 44 (1781); id. Ent.
 Syst. III. pt. I. p. 196 (1793).
- Callidryas Alemeone, Boisduval, Spéc. Gén. Lép. p. 627.

- Doubleday, List Lep. Brit. Mus. pt. I. p. 40; id. Diurnal Lep. p. 68.
- Colias Alemeone, Godart, Enc. Méth. IX. p. 97. Horsfield, Cat. Lep. Mus. E.I.C. p. 131.
- Catopsilia Alcmeone, Hübner, Verz. bek. Schmett. p. 98 (1816).
- Var. ? Papilio Jugurtha, Cramer, Pap. Exot. II. t. 187, f. E.F. (1779).
 - Colias Jugurthina, Godart, Enc. Méth. IX. p. 96. Horsfield, Cat. Lep. Mus. E.I.C. p. 132.
- ? Var. Q Papilio Crocale, Cramer, Pap. Exot. I. t. 55, f. C. D.
 - a. b. c. 3 9. Java. From Dr. Horsfield's Collection.
 - d. e. f. Var. Q. Java. From Dr. Horsfield's Collection.
 - g. h. J Q. N. India. From the Asiatic Society of Bengal.
 - i. j. Var. Q. India. From the Asiatic Society of Bengal.

"This species is very abundant in Java."—(Horsfield.)

The larva and pupa of *C. Alcmeone* are figured on Plate 1, fig. 7, 7a, discovered in Ceylon by E. L. Layard, Esq.

101. CALLIDRYAS HILARIA, Cramer Sp.

- 3 Papilio Hilaria, Cramer, Pap. IV. t. 339, f. A. B. (1782).
 - Callidryas Hilaria, Boisduval, Spéc. Gén. Lép. I. p. 626. Doubleday, List Lep. Brit. Mus. pt. I. p. 39; id. Diurnal Lep. p. 68.
- S Colias Hilaria, Godart, Enc. Méth. IX. p. 97. Horsfield, Cat. Lep. Mus. E.I.C. p. 132.
 - Catopsilia Hilaria, Hübner, Verz. bek. Schmett. p. 98.
 - Papilio Titania, Fabricius, Ent. Syst. V. p. 28 (1793).
- Papilio Catilla, Cramer, Pap. III. t. 229, f. D.E. (1782).
 Fabricius, Ent. Syst. III. pt. I. p. 209.
 - Colias Catilla, Godart, Encycl. Méth. IX. p. 95.
- Var. ? Papilio Pomona, Fabricius, Ent. Syst. III. pt. I. p. 213.

- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
- e. d. Pinang. Presented by Dr. Cantor, 1844.
- f. g. J. S. N. India. From the Asiatic Society of Bengal.
- h. ?. N. India. Presented by Colonel Buckley.

102. CALLIDRYAS SCYLLA, Linnœus Sp.

- Papilio Scylla, Linnæus, Syst. Nat. II. p. 763 (1767).

 Cramer, Pap. I. t. 12, f. C. D. Sulz., Ins. edit.

 Ræm. t. 15, f. 6. Fabricius, Spec. Ins. II. p. 47 (\$\gamma\$);
 id. Ent. Syst. III. pt. I. p. 201. Donovan, Ins. Ind.

 t.
- Callidryas Scylla, Boisduval, Spéc. Gén. Lép. I. p. 631. Doubleday, List Lep. Brit. Mus. pt. I. p. 40; id. Diurnal Lep. p. 68.
- Colias Scylla, Hübner, Verz. bek. Schmett. p. 99. Godart, Enc. Méth. IX. p. 95. Horsfield, Cat. Lep. Mus. E.I.C. p. 133.
- & Papilio Cornelia, Fabricius, Mant. Ins. II. p. 21 (1787).
- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.

"In Java, the larva of this species feeds on various species of Cassia, particularly on the C. fistula and C. obtusifolia; it is, however, occasionally found on other plants. It is extremely abundant, particularly in the early part of the rainy season, after the renewal of the foliage of these plants. I must, however, remark, that the various species of Colias resemble each other so closely in the larva state, that the distinction of species is extremely difficult. The greatest number of specimens obtained by breeding belong to this species (C. Scylla); but in examining the series put up in Java in illustration of the drawings prepared during the progress of this research, I observed several specimens of C. Jugurthina and C. Alcomeone, a circumstance which shows their near resemblance in the larva state. Among these specimens is contained that remarkable variety of C. Jugurthina figured by Cramer with the name of Papilio Crocale."—(Horsfield.)

The larva and pupa of C. Scylla are figured on Plate 1, fig. 9, 9a, from Java.

Genus GONEPTERYX, Leach.

GONEPTERYX, Leach, Edinb. Enc. IX. p. 128 (1815).

Anteos, Hübner, Verz. p. 99 (1816).

GONOPTERYX, Boisduval, Spéc. Gén. Lép. I. p. 598 (1836).

GONIAPTERYX, Westwood, Introd. Syn. p. 87 (1889).

RHODOCERA, p. Boisduval.

103. GONEPTERYX NIPALENSIS, E. Doubleday.

- Gonepteryx Rhamni, G. R. Gray, Lep. Ins. of Nepal, t. 5, f. 1 (nec. Linn.).
- Gonepteryx nepalensis, E. Doubleday, Diurnal Lep. p. 71, n. 9 (1847).
- a. J. N. India. From the Asiatic Society of Bengal.
- b. c. 3 ?. N. India. Presented by Colonel Hearsey.
- d. d. Ladakh. Presented by Captain R. Strachey.
- e. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus DERCAS, Boisduval.

Dercas, Boisduval, MS. (Doubleday, Diurn. Lep. p. 70, 1847).

104. DERCAS VERHUELLI, Van der Hoeven Sp.

Colias Verhuellii, Van der Hoeven, Tijdschrift voor Nat. Gesch. t. 8, f. 3, 4 (1838).

Dercas Verhuellii, Boisduval, MS.

- Gonepteryx Verhuellii, E. Doubleday, Diurnal Lep. t. 8, f. 8, p. 71, n. 8; id. List Lep. Brit. Mus. App. p. 10 (1848).
- ♀ Rhodocera Lycorias, E. Doubleday, Gray's Zool. Misc.
 p. 77 (1842).
- a. b. ♂ ♀. N. India. Purchased.
- c. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

This genus differs from Gonepteryx (Rhamm) "in having the claws furnished with a distinct pulvillus, and in its much slenderer feet and antennæ."—(E. Doubleday.)

Genus HEBOMOIA, Hübner.

HEBOMOIA, Hübner, Verz. bek. Schmett. p. 95 (1816). IPHIAS, Boisdwal, Spéc. Gén. Lép. I. p. 595 (1886). PIEBIS, p. Godart.

COLIAS, p. Horsfield.

105. HEBOMOIA GLAUCIPPE, Linnæus Sp.

Papilio Glaucippe, Linnæus, Syst. Nat. II. p. 762 (1767).
Clerck, Icones, t. 35, f. 1. Drury, Ins. I. t. 10, f. 3, 4 (1770). Fabricius, Spec. Ins. II. p. 45 (1781); id. Ent. Syst. III. pt. I. p. 198. Cramer, Pap. II. t. 164, f. A.B.C.

Hebomoia Glaucippe, Hübner, Verz. bek. Schmett. p. 95. Doubleday, Diurnal Lep. p. 63.

Pieris Glaucippe, Godart, Enc. Méth. IX. p. 119.

Colias Glaucippe, Horsfield, Cat. Lep. Mus. E.I.C. p. 130.

Iphias Glaucippe, Boisduval, Spéc. Gén. Lép. I. p. 596. Doubleday, List Lep. Brit. Mus. pt. I. p. 37.

a. b. 3 9. Java. From Dr. Horsfield's Collection.

c. d. Borneo. Presented by H. Lowe, Esq.

d. e. ♂ ♀. Dukhun. Presented by Colonel Sykes.

f. d. N. India. Presented by Colonel Buckley.

"This genus, of which as yet we know but two species, is easily known by its large size, the gradually thickening antennæ, the peculiar form of the palpi, and the presence of a disco-cellular nervule. The minute terminal joints of the palpi and the form of the pupa indicate an affinity to Anthocharis; its antennæ and the form of the larva point out an equal one to [Colias] Callidryas."—(Doubleday.)

"This insect is not unfrequent in Java; the larva feeds on a species of Capparis, distinguished by the native name of Wanwannan: February to April."—(Horsfield.)

The larva and pupa of H. Glaucippe are figured on Plate 1, fig. 10, 10a; from Java.

Genus ERONIA, Hübner.

ERONIA, Hübner, Samml. Exot. Schmett. (1806-27). VALERIA, Horefield, Cat. Lep. Mus. E.I.C. p. 139 (1829). MYLOTHRIS, p. Hübner.

106. ERONIA VALERIA, Cramer Sp.

- ¿ Papilio Valeria, Cramer, Pap. Exot. I. t. 85, f. A. (1779).
 Eronia Valeria, Doubleday, Diurnal Lep. p. 65, n. 1.
 - Mancipium Vorax Valeria, Hübner, Samml. Exot. Schmett. p. (1806-27).
 - Acræa Valeria, Hübner, Verz. bek. Schmett. p. 93.
 - Pieris Valeria, Godart, Enc. Méth. IX. p. 154. Boisdwal, Spéc. Gén. Lép. I. p. 444. Doubleday, List Lep. Brit. Mus. pt. I. p. 25.
 - Pontia (Valeria) Valeria, Horsfield, Cat. Lop. Mus. E.I.C. p. 139.
 - Pieris Hippia, Fabricius, Ent. Syst. III. pt. I. p. 59 (1793).
 - Danais Hippia, Godart, Enc. Méth. IX. p. 193.
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- Pieris Indica, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 25 (1844).
- · Var. Q Papilio Philomela, Fabricius, Ent. Syst. III. pt. I. p. 57.
 - a. b. 3 9. Java. From Dr. Horsfield's Collection.
 - c. d. Borneo. Presented by H. Lowe, Esq.
 - d. e. 3 ?. Dukhun. Presented by Colonel Sykes.
 - f. \circ . N. India. From the Asiatic Society of Bengal.
 - g. h. ?. N. India. Presented by Colonel Buckley.

107. ERONIA AVATAR, Moore (Plate IIa, fig. 1).

- E. Avatar, n. sp.—Male, UPPER-SIDE greenish or bluish-white; fore-wings, with the anterior and exterior margins, and the veins, black; hind-wings along the exterior margin slightly undulated with black, which extends along the veinlets. UNDER-SIDE mother-o'-pearl-white, with the veinlets blackish.
 - a. b. c. d. J. N. India. Presented by Lieutenant Hugo James.
 - e.f. J. Darjeeling. From Messrs. Schlagintweit's Collection.

There appears to be no variation whatever in this species, eighteen specimens before me being all precisely alike.

Genus COLIAS, Fabricius.

- COLLAS, Fabricius (Illiger, Mag. VI. p. 284, 1807). Boisduval, Spéc. Gén. Lép. I. p. 683. Doubleday, Diurnal Lep.
- COLOTIS, ZERENE, Hübner, Verz. (1816).
- Eurymus (Swainson). Horsfield, Cat. Lep. Mus. E.I.C. pp. 129, 134 (1829); Swains., Zool. Ill. 2nd ser. fol. 60 (1832).
- 108. COLIAS EDUSA, Fabricius.
 - Papilio Edusa, Fabricius, Ent. Syst. III. pt. I. p. 206 (1793). Hübner, Europ. Schmett. Pap. f. 429-31.
 - Colias Edusa, Ochsenheimer, Schmett. von Eur. IV. pt. II. p. 32. Godart, Enc. Méth. IX. p. 101. Boisduval, Spéc. Gén. Lép. I. p. 638. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 41; id. Diurnal Lep. p. 74, n. 7.
 - a. b. 3. Bootan. From Pemberton's Collection.
 - c. d. e. f. $\sigma \circ$. N. India. Presented by Colonel Buckley.
 - $g. \ \ ?. \ \ N. \ India. \ \ Presented by Colonel Hearsey.$
 - h. i. 9. Darjeeling. From Pearson's Collection.
- 109. COLIAS HYALE, Linnæus Sp.
 - Papilio Hyale, Linnæus, Syst. Nat. II. p. 764 (1767). Fabricius, Ent. Syst. III. pt. I. p. 207.
 - Eurymus Hyale, Swainson. Horsfield, Cat. Lep. Mus. E.I.C. p. 134 (1829).
 - Pieris Hyale, Latreille, Gén. Crust. et Ins. XIV. p. 113 (1805).
 - Colias Hyale, Ochsenheimer, Schmett. von Europa, IV. p. 32 (1816). Godart, Enc. Méth. IX. p. 33. Boisduval, Spéc. Gén. Lép. I. p. 650. Doubleday, List Lep. Brit. Mus. pt. I. p. 147; id. Diurnal Lep. p. 75, n. 23.
 - Papilio Paleno, Hübner, Eur. Schmett. Pap. f. 438, 439.
 - a. b. c. 3 ?. Punjaub. Presented by Colonel Hearsey.
- 110. COLIAS NERIENE, Fischer.
 - Colias Neriene, Fischer, Entomol. de la Russie Lép. t. 11, f. 3, 4 (1820-22). Boisduval, Spéc. Gén. Lép. I.

- p. 646. Herr. Schaffer, f. 30, 31, 32 (1844). Doubleday, List Lep. Brit. Mus. pt. I. p. 147; id. Diurnal Lep. p. 74, n. 18.
- a. b. c. 3 2. N. India. Presented by Colonel Buckley.
- d. e. f. g. 3 9. Punjaub. Presented by Colonel Hearsey.

Genus TERIAS, Swainson.

Terias, Swainson, Zool. Ill. 1st ser. text to t. 22 (1820). Horsfield. Xanthidia, Boisduval et Léconte, Icon. Lép. Am. Sept. p. 48 (1828). Leptosia, Eurema, Abaëis, Hübner, Verz. (1816).

111. TERIAS HECABE, Linnaus Sp.

- Papilio Hecabe, Linnæus, Syst. Nat. II. p. 763 (1767).

 Cramer, Pap. Exot. II. t. 124, f. B.C. Fabricius,

 Spec. Ins. II. p. 42; Ent. Syst. III. pt. 1. p. 192.

 Sulz., Ins. edit. Roem. t. 15, f. 7.
- Terias Hecabe, Swainson, Zool. Ill. 1st ser. t. 22. Horsfield, Cat. Lep. Mus. E.I.C. p. 185. Boisdwal, Spéc. Gén. Lép. I. p. 669. Doubleday, List Lep. Brit. Mus. pt. I. p. 44; id. Diurn. Lep. p. 79, n. 29. Pieris Hecabe, Godart, Enc. Méth. IX. p. 184.
- a. b. & P. Java. From Dr. Horsfield's Collection.
- c. d. J. N. India. From the Asiatic Society of Bengal.
- d. 9. Bootan. From Pemberton's Collection.
- e. d. Darjeeling. From Pearson's Collection.
- f. ?. Canara (S. India). Presented by S. N. Ward, Esq.

"This is one of the most common species of diurnal Lepidoptera, having a wide range through intratropical Asia and the Eastern Islands. In Java, it was frequently obtained by breeding, and the larva feeds on the *Eschynomene Sesban*, and is found abundantly from January to April."—(Horsfield.)

The larva and pups of *T. Hecabe* are figured on Plate 1, fig. 11, 11a; from Java.

112. TERIAS SARI, Horsfield.

- Terias Sari, Horsfield, Cat. Lep. Mus. E.I.C. p. 136 (1829).
- Terias Hecabe, var. \(\begin{aligned} \text{\$\gamma\$} & Boisduval, Spéc. Gén. Lép. I. \\ p. 669. Doubleday, Diurnal Lep. p. 79, n. 29. \end{aligned} \)
- a. 9. Java. From Dr. Horsfield's Collection.
- b. c. Borneo. Presented by Hugh Lowe, Esq.

"Clearly distinguished from T. Hecabe by the breadth and interior outline of the posterior border of the fore-wings above, as well as by the large quadrangular apical spot and the peculiarity of the markings underneath."—(Horsfield.)

113. TERIAS TILAHA, Horsfield.

Terias Tilaha; Horsfield, Cat. Lep. Mus. E.I.C. p. 136 (1829). Boisduval, Spéc. Gén. Lép. I. p. 668. E. Doubleday, Diurnal Lep. p. 79, n. 28; id. List Lep. Brit. Mus. App. p. 11.

a. 9. Java. From Dr. Horsfield's Collection.

114. TERIAS BLANDA, Boisduval.

Terias Blanda, Boisduval, Spéc. Gén. Lép. I. p. 672 (1836). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 45; id. Diurnal Lep. p. 79, n. 35.

- a. J. China. Presented by the Trustees of the British Museum.
- b. d. Darjeeling. From the Indian Collection, Exposition Universelle at Paris, 1855.

115. TERIAS HARINA, Horsfield.

Terias Harina, Horefield, Cat. Lep. Mus. E.I.C. p. 137 (1829). Boisduval, Spéc. Gén. Lep. I. p. 668. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 44; id. Diurnal Lep. p. 79, n. 27.

- a. b. & \varphi. Java. From Dr. Horsfield's Collection.
- c. d. e. d. Darjeeling. From the Indian Collection, Exposition Universelle at Paris, 1855.

116. TERIAS LÆTA, Boisduval.

Terias Læta, Boisduval, Spéc. Gén. Lép. I. p. 674 (1836).
E. Doubleday, List Lep. Brit. Mus. pt. I. p. 45;
id. Diurnal Lep. p. 79, n. 39.

- a. b. 3 ?. Bootan. From Pemberton's Collection.
- c. d. 3 ?. N. India. Presented by Colonel Buckley.
- e. d. N. India. Presented by Colonel Hearsey.
- f. g. Darjeeling. From the Indian Collection, Exposition Universelle at Paris, 1855.

117. TERIAS VENATA, Moore (Plate IIa., fig. 2).

T. Venata, n. sp.—Intermediate in shape between T. Læta and T. Drona, having the fore-wings less sharply produced at the anterior angle than in T. Læta, yet more so than in T. Drona; markings on the upper-side of the fore-wings as in T. Læta, but the brown border extending to the posterior angle; hind-wings narrowly bordered with brown; UNDER-SIDE clear yellow, with only a disco-cellular dot, and one between each veinlet on the outer margin of both wings. Expanse of wings 1½ in.

a. b. c. N. India. Presented by Colonel Hearsey.

118. TERIAS DRONA, Horsfield.

Terias Drona, Horsfield, Cat. Lep. Mus. E.I.C. p. 137,
t. 1, f. 13 (1829). Boisduval, Spéc. Gén. Lép. I.
p. 675. E. Doubleday, Diurnal Lep. p. 79, n. 40.

- a. d. Java. From Dr. Horsfield's Collection.
- b. c. d. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus THESTIAS, Boisduval.

THESTIAS, Boisduval, Spéc. Gén. Lép. I. p. 590 (1836).

IXIAS, Hübner, Verz. bek. Schmett. p. 95 (1816).*

PIERIS, p. Latreille, Godart.

PONTIA, p. Horsfield.

^{*} This name being so near that of Ixia, employed in Botany, cannot be retained.

VOL. I.

119. THESTIAS ÆNIPPE, Cramer Sp.

- Papilio Ænippe, Cramer, Pap. II. t. 105, f. C.D. t. 229,
 f. B.C. (1779). Fabricius, Spec. Ins. II. p. 48;
 Ent. Syst. III. pt. I. p. 204.
- Thestins Anippe, Boisduval, Spéc. Gén. Lép. I. p. 591. Doubleday, List Lep. Brit. Mus. pt. I. p. 36; id. Diurnal Lep. p. 61, n. 1.

Ixias Ænippe, Hübner, Verz. bek. Schmett. p. 95.

Pieris Ænippe, Godart, Enc. Méth. IX. p. 120.

Pontia Ænippe, Horsfield, Cat. Lep. Mus. E.I.C. p. 143.

- a. b. c. o g. Bootan. From Pemberton's Collection.
- d. 9. Darjeeling. From Messrs. Schlagintweit's Collection.
- f. g. q var. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

120. THESTIAS MARIANNE, Cramer Sp.

Papilio Marianne, *Cramer*, *Pap.* III. t. 217, f. C.D.E. (1780).

Thestias Marianne, Boisduval, Spéc. Gén. Lép. I. p. 592.

Doubleday, List Lep. Brit. Mus. pt. 1. p. 36; id.

Diurnal Lep. p. 61, n. 2.

Ixias Marianne, Hübner, Verz. bek. Schmett. p. 95.

Pieris Marianne, Godart, Enc. Méth. IX. p. 120.

Pontia Marianne, Horsfield, Cat. Lep. Mus. E.I.C.p. 142. Papilio Sesia, Fabricius, Spec. Ins. II. p. 47 (1781).

Ixias Bebryce, Hübner, Verz. bek. Schmett. p. 95 (1816).

- a. b. o o . N. India. Presented by Colonel Hearsey.
- c. J. N. India. Presented by Colonel Buckley.
- d. e. ♂ ♀. Madras. From Captain J. M. Jones's Collection, 1856.

121. THESTIAS PYRENE, Linnaus Sp.

Papilio Pyrene, Linnœus, Syst. Nat. II. p. 762 (1767). Cramer, Pap. II. t. 125, f. A.B.C.

Thestias Pyrene, Boisduval, Spéc. Gén. Lép. I. p. 593. Doubleday, List Lep. Brit. Mus. pt. I. p. 36; id. Diurnal Lep. p. 61, n. 3.

Ixias Pyrene, Hübner, Verz. bek. Schmett. p. 95.

Pieris Pyrene, Godart, Enc. Méth. IX. p. 120. Pontia Pyrene, Horsfield, Cat. Lep. Mus. E.I.C. p. 143. Papilio Rhexia, Fabricius, Mant. Ins. II. p. 23 (1787). Ixias Anexibia, Hübner, Verz. bek. Schmett. p. 95 (1816).

- a. 3. Silhet. Presented by Colonel Buckley.
- b. 9. Assam. Donor unknown.
- $c. \ \ 2$. Darjeeling. From Pearson's Collection.
- d. e. Q. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

122. THESTIAS VENILIA, Godart Sp.

Pieris Venilia, Godart, Enc. Méth. IX. p. 121 (1819).

Thestia Venilia, Boisduval, Spéc. Gén. Lép. I. p. 594. Doubleday, List Lep. Brit. Mus. pt. I. p. 36; id. Diurnal Lep. p. 61, n. 5.

Pontia Venilia, Horsfield, Cat. Lept. Mus. E.I.C. p. 143.

- Papilio Ænippe, apud Cramer, II. t. 157, f. C. D.
- of Thestias Balidia, Boisduval, MS. Mus. E.I.C.
- a. b. 3 ?. Java. From Dr. Horsfield's Collection.

Genus IDMAIS, Boisduval.

Idmais, Boisduval, Spéc. Gén. Lép. I. p. 59 (1836).
Mancipium, Horsfield, Cat. Lep. Mus. E.I.C. p. 141 (1829).

123. IDMAIS CALAIS, Cramer Sp.

- ∂ ♀ Papilio Calais, Cramer, Pap. I. t. 53, f. C. D. (1779);
 t. 351, f. A—D.
 - Idmais Calais, Boisduval, Spéc. Gén. Lép. I. p. 587. Doubleday, List Lep. Brit. Mus. pt. I. p. 36; id. Diurnal Lep. p. 59, n. 4.
 - 3 Papilio Amata, Fabricius, Ent. Syst. III. pt. I. p. 202 (1793).
 - Pieris Amata, Godart, Enc. Méth. IX. p. 131.
 - Pontia (Mancipium) Amata, Horsfield, Cat. Lep. Mus. E.I.C. p. 141.
 - 9 Papilio Ciprea, Fabricius, Ent. Syst. III. pt. I. p. 202.
 - a. b. c. d. India. Donor unknown.
 - e. f. Madras. From Captain J. M. Jones's Collection.

124. IDMAIS PHISADIA, Godart Sp.

Pieris Phisadia, Godart, Enc. Méth. IX. p. 132 (1819).

Idmais Phisadia, Boisduval, Spéc. Gén. Lép. I. p. 587. Doubleday, Diurnal Lep. p. 59, No. 3.

Pontia Arne, Klug, Ehrenb. Symb. Phys. Ins. t. 7, f. 1—4 (1829–45).

a. b. c. d. N. India. Donor unknown.

125. IDMAIS DYNAMENE, Klug Sp.

Pontia Dynamene, Klug, Ehrenb. Symb. Phys. Ins. t. 7, f. 5, 6 (1829-45).

Idmais Dynamene, Boisduval, Spéc. Gén. Lép. I. p. 588. Doubleday, Diurnal Lep. p. 59, n. 5.

a. b. c. Punjaub. Presented by Colonel Hearsey.

126. IDMAIS FAUSTA, Olivier Sp.

Pieris Fausta, Oliv., Voy. en Syrie, t. 33, f. 4 (1801-7).

Idmais Fausta, Boisduval, Spéc. Gén. Lép. I. p. 586. Doubleday, Diurnal Lep. p. 59, n. 2.

Pieris Fausta, Godart, Enc. Méth. IX. p. 132 (1819).

a. 3. Punjaub. Presented by Colonel Hearsey.

b. J. N. W. India. Donor unknown.

Genus CALLOSUNE, E. Doubleday.

Anthocharis (Callosune), Doubleday, Diurnal Lep. p. 57 (1847). Euchloë, Aphrodite, p. Hübner.

MANCIPIUM, p. Horsfield.

127. CALLOSUNE EUCHARIS, Fabricius Sp.

Papilio Eucharis, Fabricius, Syst. Ent. p. 472 (1775).

Anthocharis (Callosune) Eucharis, Doubleday, Diurnal Lep. p. 57, n. 15.

Pieris Eucharis, Godart, Enc. Méth. IX. p. 124.

Anthocharis Eucharis, Boisduval, Spéc. Gén. Lép. I. p. 568. Doubleday, List Lep. Brit. Mus. pt. I. p. 35.

Papilio Aurora, Cramer, Pap. III. t. 299, f. A-D. (1782).

Pieris Titea, Godart, Enc. Méth. IX. p. 124 (1819).

Pontia (Mancipium) Titea, Horsfield, Cat. Lop. Mus. E.I.C. p. 141.

Euchloë Coëneos, Hübner, Verz. bek. Schmett. p.94 (1816).

- a. b. India. Donor unknown.
- c. Madras. Donor unknown.
- d. Madras. From Captain J. M. Jones's Collection, 1856.

128. CALLOSUNE DANAË, Fabricius Sp.

Papilio Danaë, Fabricius, Mant. Ins. II. p. 22; Syst. Ent. p. 476 (1775). Donevan, Ins. of Ind. t.

Anthocharis (Callosune) Danaë, Doubleday, Diurnal Lep. p. 57, n. 17.

Pieris Danaë, Godart, Enc. Méth. IX. p. 124.

Pontia (Mancipium) Danaö, Horefield, Cat. Lop. Mus. E.I.C. p. 141.

Anthocharis Danaë, Boisduval, Spéc. Gén. I. p. 570. Doubleday, List Lep. Brit. Mus. pt. I. p. 35.

Papilio Eborea, Cramer, Pap. IV. t. 352, f. C-F. (1782).

Aphrodite Eborea, Hübner, Verz. bek. Schmett. p. 94.

- a. b. c. & ?. India. Donor unknown.
- d. 9. Madras. From Captain J. M. Jones's Collection, 1856.

129. CALLOSUNE ETRIDA, Boisduval Sp.

Anthocharis Etrida, Boisduval, Spéc. Gén. Lép. I. p. 576 (1836).

- Anthocharis (Callosune) Etrida, Doubleday, Diurnal Lep. p. 57, n. 25.
- a. b. c. d. e. f. 3 ?. N. India. Presented by Colonel Hearsey.

Genus PONTIA, Fabricius.

Pontia, Fabricius. McLeay. Boisduval, Spéc. Gén. Lép. I. p. 430 (1836).

NINA, Horsfield, Cat. Lep. Mus. E.I.C. p. 140 (1829).

130. PONTIA NINA, Fabricius.

Papilio Nina, Fabricius, Ent. Syst. III. pt. I. p. 194 (1793).

- Pontia Nina, Boisduval, Spéc. Gén. Lép. I. p. 431. Doubleday, List Lep. Brit. Mus. pt. I. p. 24; Diurnal Lep. p. 40, n. 2.
- Pieris Nina, Godart, Enc. Méth. 1X. p. 162.
- Pontia (Nina) Nina, Horsfield, Cat. Lep. Mus. E.I.C. p. 140.
- Papilio Xiphia, Fabricius, Mant. Ins. II. p. 20 (1787).
- Leptosia chlorographa (var.), Hübner, Zuträge, n. 47, 48 (1818).
- a. b. c. 3 2. Java. From Dr. Horsfield's Collection.
- d. d. Canara. Presented by S. N. Ward, Esq.
- e. ?. N. India. Presented by Colonel Buckley.
- f. J. N. India. Presented by Colonel Hearsey.

Genus PIERIS, Schrank.

- Pieris, C. p. Schrank, F. B. II. I. p. 164 (1801). Boisduval, Spéc. Gén. Lép. I. p. 434. Doubleday, Diurnal Lep. p. 42.
- Mylothris, Appias, Perryhybris, Delias, Cathæmia, Pontia, Belenois, Acræa, Anaphæa, Catophaga, Synchloë, Hübner, Verz. (1816).
- LEUCONIA, Donzel, Ann. Soc. France, VI. (1837).
- Pieris, Horsfield, Cat. Lep. Mus. E.I.C. p. 127 (1829).
- PONTIA, p. Horsfield.
- 131. PIERIS NERO, Fabricius Sp.
 - 3 Papilio Nero, Fabricius, Ent. Syst. III. pt. I. p. 153 (1793). Donovan, Ins. of India, fig.
 - Pieris Nero, Boisduval, Spéc. Gén. Lép. I. p. 485.
 Doubleday, Cat. Lep. Brit. Mus. p. 28; Diurnal Lep. p. 51, n. 155.
 - Pieris Thyria, Godart, Enc. Méth. IX. p. 147 (1819). Guérin, Icon. Règ. An. Ins. t. 77, f. 1.
 - Pontia Thyria, *Horsfield*, *Zool. Journ.* IV. p. 69, t. 4, f. 2 (1829).
 - a. b. 3 ?. Java. From Dr. Horsfield's Collection.
 - c. d. Presented by T. Tatum, Esq.

132. PIERIS ROUXI, Boisduval.

- Pieris Rouxii, Boisduval, Spéc. Gén. Lép. I. p. 481 (1836). Doubleday, Diurnal Lep. p. 50, n. 148.
- Pieris Namouna, Doubleday, List Lep. Brit. Mus. pt. I. p. 281 (1844).
- a. b. c. 3 ?. Java. From Dr. Horsfield's Collection.
- d. e. f. 3 9. Borneo. Presented by H. Lowe, Esq.
- q. Bootan. From Pemberton's Collection.
- h. Madras. From Wight's Collection.

133. PIERIS PANDA, Godart Sp.

- Pieris Panda, Godart, Enc. Méth. IX. p. 147 (1819).

 Boisduval, Spéc. Gén. Lép. I. p. 485. Doubleday,
 List Lep. Brit. Mus. pt. I. p. 28; Diurnal Lep.
 p. 50, n. 154.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

134. PIERIS HIPPO, Cramer Sp.

- ♀ Papilio Hippo, Cramer, Pap. 111. t. 195, f. B.C. (1782).
 - Pieris Ilippo, Godart, Enc. Méth. IX. p. 143. Boisduval, Spéc. Gén. Lép. I. p. 534. Doubleday, List Lep. Brit. Mus. pt. I. p. 32.
- S Papilio Phryne, Fabricius, Ent. Syst. III. pt. I. p. 196 (1793).
 - Pieris Phryne, Doubleday, List Lep. Brit. Mus. pt. I. p. 28; Diurnal Lep. p. 50, n. 149.
 - Pieris Eleonora, Boisduval, Spéc. Gén. Lép. I. p. 481 (1836).
 - Pieris Enyo, Boisduval, Spéc. Gén. Lép. I. p. 481 (1836).
- ? 3 Papilio Lyncida, Cramer, Pap. II. t. 131, f. B. (1779).
 - a. b. c. d. e. 3 2. Java. From Dr. Horsfield's Collection.
 - f. J. Bootan. From Pemberton's Collection.
 - g. h. 3 ?. Silhet. Presented by Colonel Buckley.
 - i. j. d. Darjeeling. From Messrs. Schlagintweit's Collection.

135. PIERIS NERISSA, Fabricius Sp.

- Papilio Nerissa, Fabricius, Ent. Syst. III. pt. I. p. 192 (1793).
- Pieris Nerissa, Godart, Enc. Méth. IX. p. 142. Boisduval, Spéc. Gén. Lép. I. p. 535. Doubleday, Diurnal Lep. p. 50, n. 142.
- Acræa Nerissa, Hübner, Verz. bek. Schmett. p. 93.
- a. d. Assam. Donor unknown.

136. PIERIS EGA, Boisduval.

- Pieris Ega, Boisduval, Spéc. Gén. Lép. I. p. 536 (1836). Doubleday, List Lep. Brit. Mus. pt. I. p. 32.
- a. b. Canara. Presented by S. N. Ward, Esq.
- c. N. India. Donor unknown.

137. PIERIS NEOMBO, Boisduval (Plate IIa., fig. 3, ♀).

- Pieris Neombo, Boisduval, Spéc. Gén. Lép. I. p. 539 (1839). Doubleday, Diurnal Lep. p. 50, n. 135.
- a. b. ♂ ♀. Java. From Dr. Horsfield's Collection.

138. PIERIS MESENTINA, Cramer Sp.

- Papilio Mesentina, *Cramer*, *Pap.* III. *t.* 270, *f. A.B.* (1782).
- Pieris Mesentina, Godart, Enc. Méth. IX. p. 130. Boisduval, Spéc. Gén. Lép. I. p. 501. Doubleday, List Lep. Brit. Mus. pt. I. p. 30; Diurnal Lep. p. 46, n. 50.
- Pontia Mesentina, Horsfield, Cat. Lep. Mus. E. I. C. p. 142.
- Papilio Aurota, Fabricius, Ent. Syst. III. pt. I. p. 197 (1793).
- a. b. 3 ?. N. India. From the Asiatic Society of Bengal.
- c. d. e. f. δ \circ . N. India. Presented by Colonel Hearsey.
- g. 2, with black borders. Madras. From Captain J. M. Jones's Collection, 1856.

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139. PIERIS LIBYTHEA, Fabricius Sp.

Papilio Libythea, Fabricius, Ent. Syst. III. pt. I. p. 190 (1793). Donovan, Ins. Ind. t.

Pieris Libythea, Doubleday, Diurnal Lep. p. 46, n. 44.

Pieris Libitina, Godart, Enc. Méth. IX. p. 133 (1819). Boisduval, Spéc. Gén. Lép. I. p. 499.

P Papilio Zelmira, Cramer, Pap. IV. t. 820, f. C—F. (1782).

a. b. 3 9. India. Donor unknown.

c. J. N. India. Presented by Colonel Hearsey.

140. PIERIS PANDIONE, Hübner Sp.

Hiposcritia Pandione, Hübner, Zuträge, f. 651-2 (1826).
Pieris Pandione, Boisduval, Spéc. Gén. Lép. I. p. 537.
Doubleday, List Lep. Brit. Mus. pt. I. p. 32; Diurnal Lep. p. 50, n. 136.

a. d. Java. From Dr. Horsfield's Collection.

b. c. d. 3 ?. N. India (?). Purchased.

141. PIERIS PAULINA, Cramer Sp.

Papilio Paulina, Cramer, Pap. II. t. 110, f. E. F. (1779). Fabricius, Ent. Syst. III. pt. I. p. 189.

Pieris Paulina, Godart, Enc. Méth. IX. p. 142. Boisduval, Spéc. Gén. Lép. I. p. 538. Doubleday, List Lep. Brit. Mus. pt. I. p. 33; Diurnal Lep. p. 50, n. 137.

Catophaga Leis, Hübner, Zuträge, f. 771, 772 (1827).

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

e. d. Borneo. Presented by H. Lowe, Esq.

f. g. ♂ ♀. N. India. Purchased.

h. i. of 9. Darjeeling. From the Messrs. Schlagintweit's Collection.

142. PIERIS DURVASA, Moore.

Pieris Durvasa, Moore, Proc. Zool. Soc. (1857), p. Annulosa, t. , f. 6.

VOL. I.

- a. b. c. d. 3 9. Darjeeling. From Messre. Schlagintweit's Collection.
- e. f. Q. Assam. From McClelland's Collection.

Pieris Durvasa, n. sp.—UPPER-SIDE white; male, fore-wing, from middle of costal margin, curving transversely, apically, and scolloped to near end of outer margin, black, and having near the apex some white marks, generally three, the outer ones being sometimes indistinct; base of costal margin and body greenish; on the middle of disco-cellular veinlets is a round black spot, and another more quadrate spot between the first and second median veinlets, the latter spot slightly touching the scolloped black outer margin. Female, black colour broader; the quadrate spot larger and broadly confluent at the outer angle's angles with the outer margin, thus forming a white spot on middle of outer margin; hind-wing of female with a marginal row of blackish spots, the extreme margin and anal angle being yellowish-white. UNDER-SIDE, apex of fore-wing pale yellow, the black forming only a curved transverse bar, besides the two black spots; hind-wing wholly pale yellow, and having a small disco-cellular black spot; body yellowish. Form of wings as in P. Paulina and P. Pandione. Expanse of wings 21 in. to 31 in.

143. PIERIS INDRA, Moore.

Pieris Indra, Moore, Proc. Zool. Soc. (1857), p. ;
Annulosa, t. , f. 5.

a. 9. Darjeeling. From Messrs. Schlagintweit's Collection.

Pieris Indra, n. sp.—UPPER-SIDE dark brown; fore-wing with a central longitudinal space of white from the base, also two small white spots near anterior angle; hind-wing with the anterior base brownish greenish-white, also with two white spots near anterior angle. UNDER-SIDE, fore-wing with a broad irregular fascia from middle of anterior margin to posterior angle; anterior angle chrome-yellow, with some white parting the two colours; basal half white, tinged with straw-yellow along discoidal cell; hind-wing chrome-yellow, minutely irrorated with brown; anterior half of discoidal cell and space between each veinlet near outer margin white, also a dark brown dot on disco-cellular veinlet. Wings shaped as in P. Paulina, Fabr. Expanse of wings 3 in.

Romark.—The nearest ally of Pieris Indra appears to be P. Lalage, Doubleday, Diurnal Lep. t. VI. fig. 5.

144. PIERIS NIPALENSIS, G. R. Gray.

- Pieris Nipalensis, G. R. Gray, Lop. Ins. Nepal, p. 9, t. 6, f. 1, 8 (1832).
- Pieris Brassicæ, Linnæus, var. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 32.
- a. d. Bootan. From Pemberton's Collection.
- b. Q. N. India. Presented by Colonel Hearsey.
- c. d. Madras. From Wight's Collection.

145. PIERIS GLICIRIA, Cramer Sp.

- Papilio Gliciria, *Oramer*, *Pap. Exot.* II. t. 171, f. E. F. (1779).
- Pieris Gliciria, Boisduval, Spéc. Gén. Lép. 1. p. 524. Doubleday, List Lep. Brit. Mus. pt. 1. p. 32; Diurnal Lep. p. 48, n. 102.
- Catophaga Gliciria, Hübner, Verz. bek. Schmett. p. 93. Pieris Glaphyra, Godart, Enc. Méth. IX. p. 160 (1819).
- a. d. Assam. From McClelland's Collection.
- b. ?. Bootan. From Pemberton's Collection.
- c. ?. N. India. Presented by Colonel Buckley.
- d. ?. Chusan. Presented by Dr. Cantor, 1844.

146. PIERIS DAPLIDICE, Linnœus Sp.

- Papilio Daplidice, Linnæus, Syst. Nat. II. p. 760 (1767). Fabricius, Ent. Syst. III. I. p. 191. Hübner, Eur. Schmett. Pap. f. 414, 415.
- Pieris Daplidice, Godart, Enc. Méth. IX. p. 128. Boisduval, Spéc. Gén. Lép. I. p. 544. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 33; id. Diurnal Lep. p. 48, No. 95.
- Synchloë Daplidice, Hübner, Verz. bek. Schmett. p. 94.
- a. ?. N. India. Presented by Colonel Hearsey.

Several other specimens of *P. Daplidice* are in the collections of Colonel Hearsey and J. O. Westwood, Esq.

147. PIERIS REMBA, Moore.

Pieris Remba, n. sp.—UPPER-SIDE pale yellowish-white; anterior half of fore-wing blackish-brown; some blackish on outer margin of

hind-wing. UNDEE-SIDE, broadly along costal margin and anterior half of fore-wing dull greenish-yellow, smeared with blackish; rest white; hind-wing dull greenish-yellow, smeared with darker colour. Shape of wings as in *P. Coronis*, Fabr. Expanse of wings 2; in.

a. Canara, Malabar Coast. Presented by S. N. Ward, Esq.

148. PIERIS NAMA, Doubleday.

- 3 Pieris Nama, Doubleday, List Lep. Brit. Mus. pt. I. p. 28 (1844); Diurnal Lep. p. 46, n. 88. Moore, Proc. Zool. Soc. (1857); Annulosa, t. , f. 1, 2, 3 ?.
- a. J. Silhet. Presented by the Trustees of the British Museum.
- b. d. Darjeeling. From Pearson's Collection.
- c. 3. Bootan. From Pemberton's Collection.
- d. J. e. f. g. ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

Pieris Nama.—Male, UPPER-SIDE white; fore-wing with a narrow brown line along anterior margin, curving and widening across near the middle of wing, and again tapering to posterior angle; hindwing tinged with blackish (as if from intensity of that colour on the under-side) along outer margin, where the veinlets are dark brown. Female, brown, with three longitudinal white streaks in middle of fore-wing, and two in the hind-wing, these streaks in some specimens being confluent, and occupying nearly the whole of the middle of both fore and hind-wings. UNDER-SIDE, along anterior, and widening to the outer margin of fore-wing, greenish-yellow, the rest white; hind-wing greenish yellow, darker on the veins, and nearly white along discoidal cell towards anterior angle. Expanse of wings from 2½ to 3 in.

149. PIERIS CORONIS, Cramer Sp.

- Papilio Coronis, Cramer, Pap. I. t. 44, f. B. (1779). Fabricius, Spec. Ins. II. p. 45; Ent. Syst. III. pt. I. p. 198.
- Pieris Coronis, Godart, Enc. Méth. IX. p. 132. Boisduval, Spéc. Gén. Lép. I. p. 471. Doubleday, List Lep. Brit. Mus. pt. I. p. 27; Diurnal Lep. p. 46, n. 35.

- Pontia Coronis, Horsfield, Cat. Lep. Mus. E.I.O. p. 144, t. 4, f. 9, larva,—9a, pupa.
- Var. Papilio Evagete, Cramer, Pap. III. t. 221, f. F. G. (1782).
 Var. Papilio Zeuzippe, Cramer, Pap. IV. t. 362, f. E. F. (1782).
 - a. b. c. d. ♂ ♀: Java. From Dr. Horsfield's Collection.
 - e. 9. Dukhun. Presented by Colonel Sykes.
 - f. g. 3 ?. N. India. From the Asiatic Society of Bengal.

The larva and pupa of *P. Coronis* are figured on Plate 1, fig. 12, 12a, from Java.

150. PIERIS JUDITH, Fabricius Sp.

- Papilio Judith, Fabricius, Mant. Ins. II. p. 22 (1787); Ent. Syst. III. pt. I. p. 202. Donovan, Ins. Ind. t. .
- Pieris Judith, Godart, Enc. Méth. IX. p. 121. Boisduval, Spéc. Gén. Lép. I. p. 468. Doubleday, List Lep. Brit. Mus. pt. I. p. 27; Diurnal Lep. p. 45, n. 30.
- Pontia Judith, Horsfield, Cat. Lep. Mus. E.I.C. p. 144. Acrea Judith, Hübner, Zuträge, f. 669, 670.
- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
- e. 9. Pinang. Presented by Dr. Cantor, 1844.

"This species is very abundant in Java."—(Dr. Horsfield.)

151. PIERIS LEA, E. Doubleday.

- Pieris Lea, Doubleday, List Lep. Brit. Mus. pt. I. p. 27 (1844); Ann. N. H. XVII. p. 23 (1846); Diurnal Lep. p. 45, n. 31.
- Pieris Clemanthe, Doubleday, Diurnal Lep. t. 6, f. 3 · (1847).
- a. S. Borneo. Presented by the Trustees of the British Museum.
- b. c. d. 3 ?. Borneo. Presented by Hugh Lowe, Esq.

PIERIS, Horsfield.

152. PIERIS THESTYLIS, E. Doubleday.

Pieris Thestylis, E. Doubleday, Gray's Zool. Misc. p. 76 (1842); List Lep. Brit. Mus. pt. I. p. 25; Diurnal Lep. p. 44, n. 1.

- a. b. 3 ?. Assam. Presented by Colonel Buckley.
 - c. 9. Bootan. From Pemberton's Collection.
- d. e. f. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

153. PIERIS SETA, Moore.

Pieris Seta, Moore, Proc. Zool. Soc. (1857), p. Annulosa, t. , f. 3.

a. 9. Bootan. From Pemberton's Collection.

Pieris Seta, n. sp.— UPPER-SIDE blackish-brown; fore-wing with two rows of narrowish white marks, two lengthened marks between median and submedian veinlets, and four small spots within discoidal cell; hind-wing with a marginal row of whitish spots; another row from anterior margin widening towards the anal angle; abdominal margin broadly whitish, the latter tinged with yellow; also a white linear mark in discoidal cell. UNDER-SIDE as in the upper-side, but with all the markings on the hind-wings yellow. Wings shaped as in P. Thestylis, Doubleday. Expanse 3½ in.

154. PIERIS BELLADONNA, Fabricius Sp.

Papilio Belladonna, Fabricius, Ent. Syst. III. pt. I. p. 180 (1793). Donovan, Nat. Rep. t. 35 (1823).

Pieris Belladonna, Boisduval, Spéc. Gén. Lép. I. p. 447. Doubleday, List Lep. Brit. Mus. pt. I. p. 25; Diurnal Lep. p. 44, n. 2.

Pieris Horsfieldii, G. R. Gray, Gray's Zool. Misc. p. 32 (1832); Lep. Ins. Nepal, p. 7, t. 8, f. 2. Boisduval, Spéc. Gén. Lép. I. p. 448. Herr. Schaffer, Pap. Exot. liv. I. f. 13, 14 (1853).

- a. b. c. 3 2. Darjeeling. From Pearson's Collection.
- d. d. N. India. Presented by Colonel Buckley.
- e.f. & P. Darjeeling. From Messrs. Schlagintweit's Collection.

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155. PIERIS SANACA, Moore.

Pieris Sanaca, Moore, Proc. Zool. Soc. (1857), p. Annulosa, t. , f. 4.

a. b. Darjeeling Presented by Colonel Buckley.

Pieris Sanaca, n. sp.—UPPER-SIDE white; fore-wing with the veins and veinlets broadly clouded with black, leaving only a row of lanceolate white spots on the outer margin, and another row of more linear marks extending across the disc; hind-wing with the veins and veinlets sharply defined with black; discoidal and median veins clouded with black, the latter broadly so; also a marginal row of angular lunate marks; anterior base and anal angle bright yellow. Under-side, fore-wing as in the upper-side, but the white markings more clearly defined, those near the anterior angle being yellowish; hind-wing with the dark colour broader, and the white spaces nearly covered with yellow. Shape of wings as in P. Belladonna. Expanse 31 in.

156. PIERIS CRITHOË, Boisduval.

Pieris Crithoë, Boisduval, in Guérin et Perch, Gén. Lép. t., f. (18—); id. Spéc. Gén. Lép. I. p. 450 (1836). Doubleday, List Lep. Brit. Mus. pt. I. App. p. 7; Diurnal Lep. p. 44, n. 3.

a. Q. Java. From Dr. Horsfield's Collection.

157. PIERIS EGIALEA, Cramer Sp.

Papilio Egialea, Cramer, Pap. II. t. 189, f. D. E. (1779); id. III. t. 253, f. E. F.

Pieris Egialea, Boisduval, Spéc. Gén. Lép. I. p. 450. Doubleday, List Lep. Brit. Mus. pt. I. App. p. 7; Diurnal Lep. p. 44, n. 4.

Delias Apriate, Hübner, Verz. bek. Schmett. p. 91 (1816). Pieris Pasithoë, var., Godart, Enc. Méth. IX. p. 148.

a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.

158. PIERIS PASITHOË, Linnæus Sp.

Papilio Pasithoë, Linnœus, S. N. II. p. 755 (1767). Fabricius, Ent. Syst. III. pt. I. p. 179.

Pieris Pasithoë, Godart, Enc. Méth. IX. p. 148. Bois-

duval, Spéc. Gén. Lép. I. p. 451. Doubleday, List Lep. Brit. Mus. pt. I. p. 26; Diurnal Lep. p. 44, n. 5.

Delias Pasithoë, Hübner, Verz. bek. Schmett. p. 91.

Papilio Porsenna, Cramer, Pap. I. t. 43, f. D.E. (1779); id. IV. t. 352, f. A.B.

a. b. 3 9. Dukhun. Presented by Colonel Sykes.

159. PIERIS THISBE, Cramer Sp.

Papilio Thisbe, Cramer, Pap. III. t. 233, f. C. (1782).

Pieris Thisbe, Boisduval, Spéc. Gén. Lép. I. p. 449.

Doubleday, List Lep. Brit. Mus. pt. I. p. 25;

Diurnal Lep. p. 44, n. 6. G. R. Gray, Lep. Ins. of

Nepal, p. 8, t. 7, f. 1.

Pieris Acalis, Godart, Enc. Méth. IX. p. 148 (1819).

a. b. ♂ ♀. Darjeeling. From Pearson's Collection.

160, PIERIS EUCHARIS, Drury Sp.

Papilio Eucharis, Drury, Ins. II. t. 10, f. 5, 6 (1773). Cramer, Pap. III. t. 201, f. B. C.; t. 202, f. C.

Pieris Eucharis, Doubleday, Diurnal Lep. p. 44, n. 10.

Pontia Eucharis, Hübner, Verz. bek. Schmett. p. 92.

Papilio Hyparete, Fabricius, Ent. Syst. III. pt. I. p. 178 (1793), nec. Linn.

Pieris Epicharis, Godart, Enc. Méth. IX. p. 153. Boisduval, Spéc. Gén. Lép. I. p. 456. Doubleday, List Lep. Brit. Mus. pt. I. p. 26.

a. b. 3 ?. N. India. From the Asiatic Society of Bengal.

c. d. 3 9. N. India. Presented by Colonel Buckley.

The larva and pupa of *P. Eucharis* are figured on Plate 1, fig. 18, 18a, from Canara, Southern India, where it was discovered by S. N. Ward, Esq., E.I.C.C.S., and from whose drawing our figures were copied.

161. PIERIS HYPARETE, Linnæus Sp.

Papilio Hyparete, Linn., S. N. II. p. 763 (1767). Clorck, Icon. t. 38, f. 2, 3.

- Pieris Hyparete, Godart, Enc. Méth. IX. p. 153. Boisduval, Spéc. Gén. Lép. I. p. 455. Doubleday, List Lep. Brit. Mus. pt. I. p. 26; Diurnal Lep. p. 44, n. 9.
- Pontia Hyparete, Hübner, Verz. bek. Schmett. p. 92.
- Papilio Antonoë, Cramer, Pap. II. t. 187, f. C.D. (1779); id. t. 320, f. A.B. (nec. Stoll).
- a. b. c. d. 3 2. Java. From Dr. Horsfield's Collection.

162. PIERIS HIERTE, Hübner Sp.

- Pontia Hierte, Hübner, Verz. bek. Schmett. p. 92 (1816); id. Zuträge, f. 77, 78.
- Papilio Antonoë, Stoll, Suppl. à Cramer Pap. t. 33, f. 2, 2B. (1791), nec. Cramer (1779).
- Pieris Antonoë, Boisduval, Spéc. Gén. Lép. I. p. 454.

 Doubleday, List Lep. Brit. Mus. pt. I. p. 26;

 Diurnal Lep. p. 44, n. 8.
- Pieris Hyparete, var., Godart, Enc. Méth. IX. p. 153.
- a. b. c. 3 9. N. India. Presented by Colonel Sykes.

163. PIERIS AGOSTINA, Hewitson.

- Pieris Agostina, Hewitson, Exot. Butt. pt. III.; Pieridæ, t. 1, f. 1, 2 (1852).
- a. 3. Darjeeling. From Messrs. Schlagintweit's Collection.
- P. Agostina.—UPPER-SIDE cream-colour; hind-wings more tinted than the fore-wings; fore-wing with the costal margin grey; the apex, to beyond the middle of the outer margin, black, marked with a row of five white spots; hind-wing with the border of the underside seen through. UNDER-SIDE, fore-wing with all the veins broadly black; hind-wing of a rich orange-yellow, with a submarginal line of black, and marginal spots of the same colour. Expanse of wings $2\frac{\pi}{10}$ in.

164. PIERIS DESCOMBESI, Boisduval.

Pieris Descombesi, Boisduval, Spéc. Gén. Lép. I. p. 465 (1836). Doubleday, List Lep. Brit. Mus. pt. I. p. 27; Diurnal Lep. p. 45, n. 19.

- a. b. 3 ?. Silhet. Presented by the Trustees of the British Museum.
- c. 9. Bootan. From Pemberton's Collection.
- d. e. 3 ?. N. India. Presented by Colonel Sykes.
- 165. PIERIS BELISAMA, Cramer Sp.
 - Papilio Belisama, Cramer, Pap. III. t. 258, f. A. B. C. D. (1782).
 - Pieris Belisama, Godart, Enc. Méth. IX. p. 147. Boisduval, Spéc. Gén. Lép. I. p. 464. Doubleday, List Lep. Brit. Mus. pt. 1. p. 27; Diurnal Lep. p. 45, n. 18.
 - Cathæmia Belisama, Hübner, Verz. bek. Schmett. p. 92 (1816).
 - a. b. c. d. e. f. 3 2. Java. From Dr. Horsfield's Collection.

The larva and pupa of P. Belisama are figured on Plate 1, fig. 14, 14a, from Java.

"The larva of this species feeds on a species of *Dioscorea*, and was very abundant during the rainy season, from December to February."—(Horsfield, MS.)

- 166. PIERIS AUTOTHISBE, Hübner Sp. (Plate IIa., fig. 4).
 - Delias Autothisbe, Hübner, Samml. Exot. Schmett. p. (1806-27).
 - Pieris Autothisbe, Boisduval, Spéc. Gén. Lép. I. p. 452. Doubleday, List Lep. Brit. Mus. pt. I. p. 26; Diurnal Lep. p. 45, n. 29.
 - a. §. Java. Presented by the Trustees of the British Museum.
- 167. PIERIS CORONEA, Cramer Sp.
 - Papilio Coronea, Cramer, Pap. I. t. 68, f. B. C. (1779); id. t. 361, f. G. H. Fabricius, Ent. Syst. III. pt. I. p. 201.
 - Pieris Coronea, Godort, Enc. Méth. IX. p. 151. Boisduval, Spéc. Gén. Lép. I. p. 474. Doubleday, List Lep. Brit. Mus. pt. I. p. 28; Diurnal Lep. p. 46, n. 52.

- Anaphæis Coronea, Hübner, Verz. bek. Schmett. p. 98 (1816).
- Papilio Deiopeia, Donovan, Ins. of New Holl. t. (1805).
- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.

168. PIERIS VISHNU, Moore (Plate IIa., fig. 5).

Pieris Vishnu, n. sp.—UPPER-SIDE, base of fore-wing white; anterior half black, with a short row of small white spots across anterior angle; hind-wing, basal two-thirds white, the rest black; body whitish. UNDER-SIDE, fore-wing as in the upper, but the base yellowish; hind-wing with the basal half fine yellow, anterior half black, with a marginal row of eight red lunate spots. Wings shaped as in P. Coronea, Cramer. Expanse of wings 21 in.

a. d. Java. From Dr. Horsfield's Collection.

Genus APORIA, Hübner.

APOBIA, Hübnor, Verz. bek. Schmett. (1816). PIERIS, p. Doubleday, Diurnal Lep.

169. APORIA AGATHON, G. R. Gray Sp.

Pieris Agathon, G. R. Gray, Gray's Zool. Misc. p. 33 (1832); List Lep. Ins. Nepal, p. 8, t. 8, f. 1. Boisdwal, Spéc. Gén. Lép. 1. p. 447. Doubleday, List Lep. Brit. Mus. pt. I. p. 25; Diurnal Lep. p. 48, n. 85.

- Var. Pieris Phryxe, Boisdwal, Spéc. Gén. Lép. I. p. 446 (1836). Blanchard, Voy. de Jacquemont, Ins. t. 2, f. 1 (1840).
 - a. b. 3 9. Bootan. From Pemberton's Collection.
 - c. 9. Cherra Poonjee. Presented by Colonel Buckley.

170. APORIA SORACTA, Boisduval Sp.

Pieris Soracta, Boisduval, MS. Doubleday, Diurnal Lep. p. 48, n. 86 (1847); List Lep. Brit. Mus. pt. I. App. p. 7.

- a. India. Donor unknown.
- Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

Aporia Soracta, Boisd.—UPPER-SIDE white as in A. Cratægi; fore-wing with the veinlets on the anterior half and outer margin broadly clouded with black, confining the white within a series of oval spaces; hind-wing, with the veinlets for a short distance only from the margin, and ciliæ sharply defined with black; between each veinlet from anterior margin to anal angle a lanceolate black mark. Under-side with all the veins and veinlets sharply and broadly defined with black, also the lanceolate marks; base of wing yellow. Expanse of wings 2½ in.

В.

Papiliones (part), Horsfield, Cat. Lep. Mus. E.I.C. p. 59 (1828).

Papilionide, Leach, Edinb. Encycl. IX. p. 127 (1815). Dup. C.
p. 21. E. Doubleday, Diurnal Lep. p. 1. Westwood (Introd.).

Stephens. G. R. Gray. Stainton.

Papilionides, Boisduval, Spéc. Gén. Lép. I. pp. 163, 171 (1836); et Index Méth. Eur. Lép. p. 1 (1840). Westwood (Introd.). Blanchard, Hist. Nat. des Ins. II. p. 325 (1845).

Papilioninæ et Parnassinæ, Swainson, Cabinet Cyclop. pp. 87, 90 (1840).

Papilionidi, Stephens, Cat. Brit. Lep. Brit. Mus. pt. I. p. 1 (1850). Stainton, Manual Brit. Butt. pp. 12, 14 (1856).

ABCHONTES HEBOICI, A. DOMINANTES, et A. SAPIENTES, Hübner. PAP.-PARNASSII (part), Linnæus et Fabricius.

LEP. HEXAPODA (part), Latreille, Règ. Anim. V. p. 374 (1829).

Papilionida (part), Swainson, Cab. Cyclop. p. 86 (1840).

Papilionii (part), Blanchard, Hist. Nat. des Ins. 11. pp. 322, 324 (1845).

Chevaliers, Boisdural, Hist. Gén. des Lép. Amér. Sep. p. 2 (1829).

Genus PARNASSIUS, Latreille.

PARNABSIUS, Latreille, H. N. des Crust. et Ins. XIV. p. 110 (1805). DORITIS, Fabricius, Syst. Gloss. (ined.).

PARNASSIS, Hübner, Verz. bek. Schmett. p. 90 (1816).

Pirris, A. Schrank, F. B. II. I. p. 160 (1801).

171. PARNASSIUS HARDWICKI, G. R. Gray.

Parnassius Hardwickii, G. R. Gray, Gray's Zool. Misc. p. 32 (1832); Lep. Ins. Nepal, p. 7, t. 4, f. 1, 1a.

Boisduval, Spéc. Gén. Lép. I. p. 400. Doubledoy, List Lep. Brit. Mus. pt. I. p. 21; Diurnal Lep. p. 27, n. 10. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 76, n. 352, t. 12, f. 8—11; id. List Lep. Brit. Mus. pt. I. p. 91.

a. b. J. N. India. Presented by Colonel Hearsey.

This species was taken by Major Charlton in Chinese Tartary, at an elevation of 15,000 feet.

Genus LEPTOCIRCUS, Swainson.

LEPTOCIBCUS, Swainson, Zool. Ill. 2nd ser. t. 106 (1832). IPHICLIDES, pt. Hübner, Zuträge, f. 645-6 (1832). LAMPBOSURA, Boisduval.

172. LEPTOCIRCUS CURIUS, Fabricius Sp.

Papilio Curius, Fabricius, Mant. Ins. 11. p. 9 (1787); Ent. Syst. 111. pt. 1. p. 28. Donovan, Ins. Ind. t. 47, f. 1.

Leptocircus Curius, E. Doubleday, Zoologist, III. cumfig.; List Lep. Brit. Mus. pt. I. p. 19; Diurnal Lep. p. 23, n. 1, t. 4*, f. 1. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 73, n. 336; id. List Lep. Brit. Mus. pt. I. p. 86.

a. b. 3 ?. N. India. Presented by Colonel Sykes.

c. d. ♂ ♀. Cherra Poonjee. Presented by Colonel Buckley.

173. LEPTOCIRCUS MEGES, Zinken-Sommer Sp.

Papilio Meges, Zinken-Sommer, Nova Acta Acad. Nat. Cur. XV. p. 161 (1831).

Leptocircus Meges, E. Doubleday, Zoologist, III. p. 23, fig.; List Lep. Brit. Mus. pt. I. p. 20; Diurnal Lep. p. 23, n. 2. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 73, n. 337.

Leptocircus Curius, apud Swainson, Zool. Ill. 2nd sor. t. 106. Boisdwal, Spéc. Gén. Lép. I. p. 381; t. 3, B. f. 1; et t. 1, C. f. 3.

Erycina Curius, apud Godart, Enc. Méth. IX. p. 827. Iphiclides Curius, apud Hübner, Zuträge, f. 645-6.

a. b. 3 ?. Java. From Mr. Argent's Collection.

Genus TEINOPALPUS, Hope.

TEINOPALPUS, Hops, Trans. Linn. Soc. XIX. p. 131 (1843).

174. TEINOPALPUS IMPERIALIS, Hope.

- Teinopalpus imperialis, Hope, Trans. Linn. Soc. XIX.
 p. 131, t. 11, f. 1, 2. Westwood, Arcana Ent. t. 59.
 Doubleday, List Lop. Brit. Mus. I. p. 1; Diurnal
 Lop. p. 2. G. R. Gray, Cat. Lop. Brit. Mus. pt. I.
 p. 80, n. 367; id. List Lop. Brit. Mus. pt. I. p. 95.
- ? Teinopalpus Parryiæ, Hope, Trans. Linn. Soc. XIX. p. 132. Westwood, Arcana Ent. t. 60. Doubleday, List Lep. Brit. Mus. pt. I. p. 2.
- a. b. d. Darjeeling. From Pearson's Collection.
- c. J. Darjeeling. Presented by Colonel Buckley.
- d. e. f. 3 2. Darjecling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

"This beautiful genus, of which one species only is yet known, may be distinguished at a glance from the others of this family, by its long porrect palpi. There is little else in its structure to separate it from Ornithoptera or Papilio, though some of its peculiarities indicate an approach to Thais, a genus in which the palpi are more developed than in any other of the Papilionida, with the exception of Teinopalpus. The posterior wings differ materially in the two sexes; in the male they are dentate, one-tailed; in the female, three-tailed.

Nothing is known of its habits beyond the fact of its inhabiting the highest ranges of the Himalayas, especially towards the frontiers of Assam, and there it seems to be of very rare occurrence."—(Doubleday, Diurnal Lep.)

Genus ORNITHOPTERA, Boisduval.

ORNITHOPTERA, Boisduval, Faune de l'Océan. t. 4, f. 1 (1832).

TROIDES, Hübner, Verz. bek. Schmett. 87 (1816).

AMPHRISIUS, Swainson, Zool. Ill. 2nd ser. t. 98 (1888).

Papilio (Ornithoptera), G. R. Gray, Cat. Lep. Brit. Mus. (1852).

175. ORNITHOPTERA RICHMONDIA, G. R. Gray.

Papilio (Ornithoptera) Richmondia, G. R. Gray, Cat.

- Lop. Brit. Mus. pt. I. p. 2, t. 2, f. 1, 2 (1852); List of Lop. Brit. Mus. pt. I. p. 2.
- a. b. & Q. Richmond River, New South Wales.
 Collected by F. Strange, Esq. From Captain
 Parry's Collection.
- 176. ORNITHOPTERA DARSIUS, G. R. Gray.
 - Papilio (Ornithoptera) Darsius, G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 5, n. 11 (1852); List Lep. Brit. Mus. pt. I. Pap. p. 4.
 - Ornithoptera Amphimedon, apud E. Doubleday, Gon. Diurnal Lep. t. 1, f. 2, 3.
 - a. b. J. Ceylon. Donor unknown.
 - c. 9. Drawing. Ceylon. From Jonville's Collection.

The larva and pupa of *Ornithop. Darsius* are figured on Plate II., fig. 2, 2a, from Ceylon, where discovered by E. L. Layard, Esq., from whose drawings our figures were copied.

177. ORNITHOPTERA POMPEUS, Cramer Sp.

- Papilio Pompeus, Cramer, Pap. Ex. t. 25, f. A. (1775).

 Esper, Ausl. Schmett. t. 24, f. 2,

 \$\circ\$.
 - Ornithoptera Pompeus, E. Doubleday, Diurnal Lep. p. 4, n. 9.
 - Papilio (Ornithoptera) Pompeus, G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 5, n. 13; List Lep. Brit. Mus. pt. I. p. 5.
- Papilio Astenous, Fabricius, Syst. Ent. II. p. 448 (1775); Ent. Syst. III. I. p. 19.
 - Troides Astenous, Hübner, Verz. bek. Schmett. p. 88.
- 9 Papilio Minos, Cramer, Pap. Ex. t. 195, f. A. (1782).
 - Troides Minos, Hübner, Verz. bek. Schmett. p. 88.
- 3 Papilio Heliacon, Fabricius, Ent. Syst. III. I. p. 19 (1798). Donovan, Ins. of Ind. t. 22, f. 1; ex Jones, Icon. ined. I. t. 42.
 - Ornithoptera Heliacon, Boisduval, Spéc. Gén. Lép. I. p. 178. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 2.
 - Amphrisius Nymphalides, Swainson, Zool. Ill. 2nd ser. t. 98.

- Papilio Amphrisius, pt. Godart, Enc. Méth. IX. p. 27.
 Papilio Amphrisius, apud Horefield, Cat. Lep. Mus. E.I.C.
 t. IV. f. 13, larva et pupa.
- a. b. c. d. e. f. 3 9. Java. From Dr. Horsfield's Collection.
- g. d. Darjeeling. From Pearson's Collection.
- h. i. d. Cherra Poonjee. Presented by Colonel Buckley.
- j. d. Darjeeling. From Messrs. Schlagintweit's Collection.

The larva and pupa of *Ornithop. Pompeus* are figured on Plate II., fig 1, 1a, from Java, where it "feeds on a species of *Aristolochia*, bearing the native name of *Wallas*. March. Scarce."—(Horsfield, MS.)

178. ORNITHOPTERA RHADAMANTHUS, Boisduval.

- Ornithoptera Rhadamanthus, Boisduval, Spéc. Gén. Lép. I. p. 180 (1836). E. Doubleday, Diurnal Lep. p. 4, n. 10.
- Papilio (Ornithoptera) Rhadamanthus, G. R. Gray, Cat. Lop. Brit. Mus. pt. I. p. 6, n. 14; List Lep. Brit. Mus. pt. I. p. 5.
- 3 Papilio Amphrisius, apud Lucas, Lep. Exot. t. 2, f. 1.
 - a. 3. N. India. Presented by Colonel Sykes.
 - b. 9. Canara? Presented by S. N. Ward, Esq.
 - c. 9. Darjeeling. From Pemberton's Collection.
 - d. e. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.
- f. Q. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

179. ORNITHOPTERA AMPHRISIUS, Cramer Sp.

- 3 Papilio Amphrysus, Cramer, Pap. Ex. t. 219, f. A. (1782).
 - Ornithoptera Amphrisius, Boisdweal, Spéc. Gén. Lép. I. p. 178. De Haan, Verh. Nat. Gesch. Ned. p. 19? E. Doubleday, Diurnal Lop. p. 4, n. 8.
 - Papilio Amphrisius, Fabricius, Ent. Syst. III. I. p. 11. Godart, Enc. Méth. IX. p. 27, pt. n. 7.

Pupilio Amphrisus, Horbet, Pap. t. 1, f. 8. Espor, Ausl. Schmott: t. 84, f. 1.

Troides Amphrysus, Hübner, Vers. bek. Schmett. p. 88.

Papilio (Ornithoptera) Amphrisius, G. R. Gray, Cat. Lop. Brit. Mus. pt. I. p. 6, n. 15; List Lep. Brit. Mus. pt. I. p. 6.

a. b. c. d. of ?. Borneo. Presented by H. Lowe, Esq.

Genus PAPILIO, Linnaus.

Papilio, Linnous. Fubricius. Godort. Horafield. Boisduval. Doubleday. G. B. Gray.

ZELIMA, Fabricius. Zinken-Sommer.

AMARYSSUS, Dalm., P. S. p. 85 (1816).

IPHICLIDES, JABONIADES, EUPHRADES, HERACLIDES, LARRITADES, MENELAIDES, ACHILLIDES, IDAIDES, ZETIDES, ORPHEIDES, NESTORIDES, CALAIDES, PRIAMIDES, PARIDES, ITHOBALUS, ILIADES, ARISBE, ZELIDES, HECTORIDES, ASCANIDES, AMAURIS, Hübner, Verz. (1816).

CLYTIA, POLYDORUS, THOAS, CHIOBISSES, PROTESILAUS, PODA-LIRIUS, Succinson, Zool. Ill. 2nd sor. (1829-83).

180. PAPILIO NOX, Swainson.

Papilio Nox, Swainson, Zool. Ill. 1st ser. t. 102 (1822).
Horefield, Cat. Lep. Mus. E.I.C. t. 1, f. 15. Boisdwal, Spéc. Gén. Lép. I. p. 277. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 11; Diurnal Lep. p. 9, s. 12. G. B. Gray, Cat. Lep. Brit. Mus. pt. I. p. 8, n. 28; id. List Lep. Brit. Mus. pt. I. p. 9.

Papilio Memereus, Godort, Enc. Méth. IX. Suppl. p. 809 (1828).

Papilio Necsius, Zinkon-Sommer, Nov. Act. Acad. Nat. Gur. XV. s. 14, f. 4 (1831).

Papilio Not, var. 2, De Haan, Verh. Nat. Geech. Ned. Overs. Ben. Inc. p. 41, t. 5, f. 3.

a. ?. Java. From Dr. Horsfield's Collection.

181. PAPILIO ASTINA, Horefield.

Papilio Astina, Horgfeld. Westwood, Cubinet Orient. Ent. p. 20, t. 9, f. 8; id. Doubleday's Diurnal Lop. Add. p. 829. G. R. Gray, Cut. Lap. Brit. Mus. pt. I. p. 72, s. 395; id. Liet Lop. Brit. Mus. pt. I. p. 85.

s. J. (type). Java. From Dr. Horsfield's Collection.

182. PAPILIO MACAREUS, Godart.

Papilio Macareus, Godart, Enc. Méth. IX. p. 76 (1819).

Horsfield, Cat. Lep. Mus. E.I.C. t. 5, f. 1. Boisdweal, Spéc. Gén. Lép. I. p. 374. Lucas, Lep. Exot. t. 28, f. 1. E. Doubleday, Diurnal Lep. p. 21, n. 259; List Lep. Brit. Mus. pt. 1. App. p. 4.

Papilio striatus, Zinkon-Sommer, Nova Acta Acad. Nat. Cur. XV. t. 14 (1881).

Papilio Xenocles, var. a., G. R. Gray, Cat. Lop. Brit. Mus. pt. I. p. 71; List Lop. Brit. Mus. pt. I. p. 88.

a. b. c. d ?. Java. From Dr. Horsfield's Collection.

d. d. Darjeeling. From Messrs. Schlagintweit's Collection.

183. PAPILIO MEGARUS, Westwood.

Papilio Megarua, Westwood, Arcana Ent. p. 98, t. 72,
f. 8 (1845). E. Doubleday, Diurnal Lop. p. 20,
n. 256; List Lop. Brit. Mus. pt. I. App. p. 4.
G. E. Gray, Cat. Lop. Brit. Mus. pt. I. p. 71,
n. 326; id. List Lop. Brit. Mus. pt. I. p. 83.

a. J. Silhet. Presented by the Trustees of the British Museum.

184. PAPILIO XENOCLES, E. Doubleday.

Papilio Xenocles, E, Doubleday, Gray's Zool. Misc. p. 74 (1842); List Lep. Brit. Mus. pt. I. p. 19; Diurnal Lep. p. 20, s. 258. Westwood, Arcana Ent. p. 127, t. 92, f. 1. G. B. Gray, Cat. Lep. Brit. Mus. pt. I. p. 71, s. 327; id. List Lep. Brit. Mus. pt. I. p. 88. Papilio Pollux, apud Erichson, Wiegm. Archiv. für Watury. II. p. 248 (1843).

a. 5. c. 3 2. Silhet. Presented by Colonel Buckley. d. 5. Despecting. From Indian Collection, Exposition Universelle at Paris, 1855.

185. PAPILIO DELESSERTI, Guéria.

Papilio Delenertii, Guéria, Bev. Zool. (1889), p. 283; Delese. Sow. Voy. dans l'Inde, Inc. t. 17. E. Doubleday, List Lop. Brit. Muc. pt. I. p. 19; Diurnal Lep. p. 20, n. 257. G. R. Gray, Cat. Lop. Brit. Mus. pt. I. p. 71, n. 825; id. List Lop. Brit. Mus. pt. I. p. 82.

Papilio Laodoun, De Haan, Verh. Naturl. Geech. p. 42, t. 8, f. 5 (1839).

Papilio Melanides (De Haan), Ericheon, Wiegm. Archiv. für Naturg. II. p. 248 (1848).

s. 2. Java (?). From Dr. Horsfield's Collection (?).

186. PAPILIO AGESTOR, G. R. Gray.

Papilio Agestor, G. R. Gray, Lop. Ins. of Nopal, t. 4, f. 2 (1881). J. E. Gray's Zool. Misc. (1882), p. 82. Boisdwool, Spéc. Gén. Lép. I. p. 876. Westwood, Arcana Ent. p. 59, t. 16, f. 2. Kollar, in Hügel's Kaschmir, pt. II. p. 406. E. Doubleday, List Lop. Brit. Mus. pt. I. p. 19; Diurnal Lop. p. 21, n. 262. G. R. Gray, Cat. Lop. Brit. Mus. pt. I. p. 71, n. 828; id. List Lop. Brit. Mus. pt. I. p. 82.

- a. d. N. India. Presented by Colonel Buckley.
- J. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

"This species is one of the earliest of the genus that is on the wing, being found in woody situations in April and May, dancing lightly over the tops of low bushes and trees, with a sailing kind of flight, gliding along without moving the wings. It is by no means rare at Masuri."—(Capt. T. Hutton, Trans. Ent. Soc. V. p. 50.)

187. PAPILIO DISSIMILIS, Linnaus.

3 Papilio dissimilis, Linn., S.N. II. p. 782 (1767). Clorok, Icon. t. 16, f. 2. Cramor, Pap. I. t. 82, f. C.D. Habricius, Ent. Syst. III. I. p. 88. Horbet, Pap. t. 126, f. 2, 8. Godart, Enc. Méth. IX. p. 178. Boisdaval, Spéc. Gén. Lép. I. p. 377. Lucas, Lep. Rect. t. 28, f. 2. E. Doublodoy, Liet Lap. Brit. Mas. pt. I. p. 19; Diurnal Lop. p. 21, s. 263. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 71, n. 330; id. List Lep. Brit. Mus. pt. I. p. 84.

Clytia dissimilis, Swainson, Zool. Ill. 2nd ser. t. 120.

Papilio Panope, Linnæus, S. N. II. p. 782. Cramer,
Pap. III. t. 295, f. E. F. Fabricius, Ent. Syst. III.
I. p. 59. Boisduval, Spéc. Gén. Lép. I. p. 373.
Kollar, in Hügel's Kaschmir, pt. II. p. 406. E.
Doubleday, List Lep. Brit. Mus. pt. I. p. 19.

Princeps Dominans Panope, Hübner, Samml. Exot. I. t. 132.

Arisbe Panope, Hübner, Verz. bek. Schmett. p. 89.

Papilio Panopes, Godart, Enc. Meth. IX. p. 75.

Var. a. Papilio Clytia, Linnæus, S. N. 11. p. 781. Fabricius, Ent. Syst. 111. 1. p. 127.

> Papilio Echidna, De Haan, Vorh. Naturl. Gesch. p. 42, t. 8, f. 6 (18-).

Var. b. Papilio Palephates, Westwood, Arcana Ent. p. 127, pl. 76, f. 1. E. Doubleday, Diurnal Lep. p. 21, n. 265.

a. b. c. 3 ?. N. India. Presented by Colonel Buckley.

d. ?. Canara. Presented by S. N. Ward, Esq.

c. 9, with anterior wings wholly brown. Donor unknown.

The larva and pupa of *P. dissimilis* are figured on Plate II., fig. 3, 8a, 3b, and were copied from the drawings of General Hardwicke, now in the Library of the British Museum. This species has been also reared in Ceylon by E. L. Layard, Esq. The transformations were also observed by Lady Gilbert, among whose drawings figures are given. Her ladyship states that "it feeds on a plant called by the natives *Maike*. The larva was obtained on the 26th July; two days after it commenced its transformation, and on the following day the chrysalis resembled a dried twig, adhering to the frame only by the extremity of the tail, and supported on each side by two fine threads: in this state it died."

"Occurs in warm glens as well as in the Dhoon, but it does not appear to be very numerous."—(Captain T. Hutton, Trans. Ent. Soc. V. p. 49.)

188. PAPILIO CASTOR, Westwood.

- 3 Papilio Castor, Westwood, Ann. N. H. IX. p. 37 (1842); Arcana Entom. p. 129, t. 80, f. 1, 2. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 4; Diurnal Lep. p. 12, n. 72. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 21, n. 93; id. List Lep. Brit. Mus. pt. 1. p. 28.
- § Papilio Pollux, Westwood, Ann. N. H. IX. p. 37 (1842);
 Arc. Ent. p. 129, t. 90, f. 1. E. Doubleday, List
 Lep. Brit. Mus. pt. 1. p. 19; Diurnal Lep. p. 21,
 n. 264.
- a. 3. Cherra Poonjee. Presented by Colonel Buckley.
- b. 3. Silhet. Presented by the Trustees of the British Museum.
- c. ?. N. India. Donor unknown.

189. PAPILIO HECTOR, Linnæus.

Papilio Hector, Linnaus, S. N. II. p. 745 (1767).

Clerck, Icon. t. 33, f. 1. Cramer, Pap. 11. t. 141,
f. A. Fabricius, Ent. Syst. 111. I. p. 3. Herbst,
Pap. t. 13, f. 2. Esper, Ausl. Schmett. t. 1, f. 2.

Godart, Enc. Méth. IX. p. 70. Boisdwal, Spéc.
Gén. Lép. I. p. 269. Lucas, Lep. Exot. t. 4, f. 2.

De Haan, Verh. Naturl. Gosch. p. 39. Westwood,
Arcana Ent. p. 9, t. 3. E. Doubleday, List Lep.
Brit. Mus. pt. 1. p. 10; Diurnal Lep. p. 9, n. 25.
G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 11, n. 41;
id. List Lep. Brit. Mus. pt. I. p. 13.

Menelaides Hector, Hübner, Verz. bek. Schmett. p. 84.
Princeps Heroicus Hector, Hübner, Samml. Exot. I.
t. 109.

- a. b. 3 ?. Calcutta. Presented by Colonel Buckley.
- c. d. d. N. India. Donor unknown.
- e.f. ?. Madras. In exchange.
- g. Ceylon. Drawing. From Jonville's Collection.

The larva and pupa of Pap. Hector are figured on Plate II., fig. 4, 4a, 4b, from General Hardwicke's drawings.

"The larva feeds on Aristolochia indica." - (Hardwicke.)

190. PAPILIO DIPHILUS, Esper.

- Papilio Diphilus, Esper, Ausl. Schmett. t. 40, f. 1 (1801). E. Doubleday, Diurnal Lep. p. 9, n. 20. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 10, n. 34; id. List Lep. Brit. Mus. pt. I. p. 11.
- Polydorus Thoas, Swainson, Zool. Ill. 2nd ser. t. 100 (1833).
- Papilio Polydorus, apud Cramer, Pap. II. t. 128, f. A.B.

 Herbst, Pap. t. 15, f. 3. Godart, Enc. Méth. IX.
 p. 71 (part). Horsfield, Cat. Lep. Mus. E.I.C.
 t. 3, f. 17. E. Doubleday, List Lep. Brit. Mus. pt. I.
 p. 10.
- Menclaides Polydorus, Hübner, Verz. bek. Schmett. p. 84.Princeps Heroicus Polydorus, Hübner, Samml. Exot. I.t. 110.
- Papilio Polydorus, var., Boisduval, Spéc. Gén. Lép. I. p. 267. De Haan, Verh. Naturl. Gesch. p. 38, t. 8, f. 1.
- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
- e. f. ♂ ♀. N. India. From the Asiatic Society of Bengal.
- $g. h. \circ$. Calcutta. Presented by Colonel Buckley.

The larva and pupa of Pap. Diphilus are figured on Plate 11., fig. 5, 5a, from Java.

191. PAPILIO ANTIPHUS, Fabricius.

- Papilio Antiphus, Fabricius, Ent. Syst. 111. pt. I. p. 10. Donovan, Ins. of Ind. t. 15, f. 2; ex Jones, Icon. ined. 1. t. 14. Godart, Enc. Méth. 1X. p. 71. Boisdwal, Spéc. Gén. Lép. I. p. 266. De Haan, Verh. Naturl. Gesch. p. 49, t. 8, f. 2, \(\rho\). E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 9; Diurnal Lep. p. 9, n. 21. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 11, n. 37; id. List Lep. Brit. Mus. pt. 1. p. 12.
- Papilio Polygius, Godart, Enc. Méth. IX. Suppl. 8, n. 11, 129-80 (1823).
- ? ? Papilio Theseus, Cramer, Pap. II. t. 180, f. B. (1776).
 Fabricius, Ent. Syst. 111. pt. I. p. 2. Herbst, Pap.

t. 14, f. 3. Esper, Ausl. Schmett. t. 36, f. 3. Godart, Enc. Méth. IX. p. 71. Boisdwal, Spéc. Gén. Lép. I. p. 276. E. Doubleday, Diurnal Lep. p. 11, n. 63.

Menelaides Theseus, Hübner, Verz. bek. Schmett. p. 84. Var. a., G. R. Gray.

Papilio Kotzebuw, Eschscholtz, Voy. Kotzebue, t. 1, f. 2. Papilio Antiphus, &, De Haan, Verh. Naturl. Gesch. pp. 5, 40.

a. J. Java. Presented by the Trustees of the British Museum.

Var. b., G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 11.

a. b. d. Borneo. Presented by H. Lowe, Esq.

192. PAPILIO COON, Fabricius.

Papilio Coon, Fabrichys, Ent. Syst. III. 1. p. 10 (1793).
Donovan, Ins. of China, t. 24, f. 1; ex Jones, Iconined. I. t. 36. Godart, Enc. Méth. IX. p. 65.
Lucas, Lep. Exot. t. 6, f. 2. Boisduval, Spéc. Gén. Lép. 1. p. 201. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 3; Diurnal Lep. p. 10, n. 41. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 16, n. 60; id. List Lep. Brit. Mus. pt. 1. p. 19.

Papilio Hypenor, Godart, Enc. Meth. 1X. p. 65 (1819). Achillides Hypenor, Hübner, Samml. Exot. 111. t. 491.

- a. b. c. ♂ ♀. Java. From Dr. Horsfield's Collection.
- d. d. N. India. Presented by Colonel Buckley.
- e. d. China. Presented by Dr. Cantor, 1844.

193. PAPILIO ALCINOUS, Klug.

Papilio Alcinous, Klug, Neue Schmett. der Insekt.-Samml.

Berlin (1836), t. 1. De Haan, Verh. Nat. Gesch.

Insect. p. 26. E. Doubleday, Diurnal Lep. p. 9,
n. 19. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1.
p. 12, n. 45; List Lep. Brit. Mus. pt. 1. p. 14.

Hab. Japan.—(Siebold.)

Var. a., G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 12, t. 4, f. 2, 3, 3, 8; List. Lep. Brit. Mus. pt. I. p. 14.

a. b. d. Bootan. From Pemberton's Collection.

The larva of Pap. Alcinous is figured on Plate II., fig. 6, copied from De Haan's published drawing.

194. PAPILIO PHILOXENUS, G. R. Gray.

9 Papilio Philoxenus, G. R. Gray, Lep. Ins. of Nepal, p. 5, t. 2 (1831). J. E. Gray's Zool. Misc. (1832), p. 32. Boisdwal, Spéc. Gén. Lép. I. p. 264. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 9; Diurnal Lep. p. 9, n. 14. Westwood, Cab. Orient. Ent. t. 40, f. 2. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 9, n. 31; id. List Lep. Brit. Mus. pt. I. p. 10.

Var. a., G. R. Gray.

7 Papilio Polyeuctes, E. Doubleday, Gray's Zool. Misc. p. 74 (1842); Diurnal Lep. p. 9, n. 15, t. 2, f. 3. Westwood, Cab. Orient. Ent. t. 40, f. 3.

Papilio Boötes, pt., Erichson.

- a. b. 5 ?. Darjeeling. From Pearson's Collection.
- c. d. 3 9. Cherra Poonjee. Presented by Colonel Buckley.
- e. f. 3 9. Darjeeling. From Messrs. Schlagintweit's Collection.

195. PAPILIO DASARADA, Moore.

- Papilio Philoxenus, var., Westwood, Cab. Orient. Ent. t. 40, f. 5.
 - Papilio Philoxenus, var. B., G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 9; List Lep. Brit. Mus. pt. I. p. 10.
 - a. b. d Q. Cherra Poonjee. Presented by Colonel Buckley.

196. PAPILIO RAVANA, Moore.

- Papilio Philoxenus, var., Westwood, Cab. Orient. Ent. t. 40, f. 4.
 - Papilio Philoxenus, var. C., G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 9; List Lep. Brit. Mus. pt. I. p. 10.
- a. b. 3 ?. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

197. PAPILIO MINEREUS, G. R. Gray.

Papilio Minereus, G. R. Gray, Lep. Ins. of Nepal, p. 5, t. 1 (1831). J. E. Gray's Zool. Misc. (1832), p. 32; Cat. Lep. Brit. Mus. pt. 1. p. 9, n. 32; id. List Lep. Brit. Mus. pt. 1. p. 10. Westwood, Cab. Orient. Ent. t. 40, f. 1. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 9; Diurnal Lep. p. 9, n. 16.

Papilio Philoxenus, var., Westwood.

J. Darjeeling. From Messrs. Schlagintweit's Collection.

198. PAPILIO JANAKA, Moore.

Papilio Janaka, Moore, Proc. Zool. Soc. (1857); Annulosa, t. , f. 1, 1a.

- a. ∂. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- c. Darjeeling. From Messrs. Schlagintweit's Collection.

Pap. Janaka, n. sp.—UPPER-SIDE black; hind-wing with a white patch on the disc, which is divided by three of the veinlets, thus forming four separate patches, the outer one on each side being the shortest, and the two nearest the abdominal margin being tinged with red; three sub-marginal and three marginal lunules and circular mark at anal angle red; tail with two red spots. Under-side black; fore-wing with the base red; hind-wing with patch on disc as on upper-side, but the one nearest abdominal margin nearly covered with red, which colour is continued upwards and downwards, occupying the base of the wing and the whole space between the third median veinlet and sub-median vein; lunules as above, but are larger, and a fourth sub-marginal one appears between the discoidal and first median veinlets; tail spotted as above; cilia between the angles white; head, neck, body beneath, and sides, red. Wings shaped as in P. Bootes, Westwood, Arc. Ent. t. 31. Expanse of wings 5 in.

Remark.—Papilio Boötes appears to be a near ally of P. Janaka.

199. PAPILIO VARUNA, White.

- Papilio Varuna, White, Entomologist (1842), p. 280.

 Westwood, Ann. N. H. IX. n.s. p. 37. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 11; Diurnal Lep. p. 9, n. 11. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 8, n. 27; id. List Lep. Brit. Mus. pt. I. p. 9.
- 3 Papilio Astorion, Westwood, Ann. N. H. (1842), p. 37;
 Arc. Ent. p. 69, t. 66, f. 1.
- ? Papilio Chara, Westwood, Arc. Ent. p. 69, t. 66, f. 2 (1845).
- o. J. N. India. Presented by the Trustees of the British Museum.
- \(\rho_1 \). N. India. Presented by Lieutenant Hugo
 James.
- c. d. e. f. g y. Darjeeling. Reserved from the Indian Collection, Exposition Universelle at Paris, 1855.

200. PAPILIO RHETENOR, Westwood.

- Papilio Rhetenor, Westwood, Arcana Ent. p. 59, t. 16, f. 1, 1a (1842). Kollar, in Hügel's Kaschmir, pt. 11, p. 403. E. Doubleday, List Lep. Brit. Mus. pt. 1, p. 3; Diurnal Lep. p. 10, n. 35. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1, p. 15, n. 51; id. List Lep. Brit. Mus. pt. 1, p. 18.
- a, b, ϕ . Darjeeling. From Pearson's Collection.
- c. d. g. q. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

201. PAPILIO PROTENOR, Cramer.

d Papilio Protenor, Cramer, Pap. I. t. 49, f. A. B. (1775).
Fabricius, Ent. Syst. 111. I. p. 13. Herbst, Pap. t. 7, f. 1, 2. Esper, Ausl. Schmett. t. 33, f. 2; t. 29, f. 2? Godart, Enc. Meth. IX. p. 30. Boisdwal, Spec. Gén. Lép. 1, p. 198. De Haan, Verh. Naturl. Gesch. p. 25. E. Doubleday, List Lep. Brit. Mus. pt. 1, p. 3; Diurnal Lep. p. 10, n. 34. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1, p. 14, n. 52; id. List Lep. Brit. Mus. pt. 1, p. 17.

- Iliades Protenor, Hübner, Verz. bek. Schmett. p. 89.
- Papilio Laomedon, Fabricius, Ent. Syst. III. 1. p. 12. Donovan, Ins. of China, t. 25; ex Jones, Icon. ined. I. t. 10.
- a. 3. Bootan. From Pemberton's Collection.
- b. c. 3 9. N. India. Presented by Colonel Buckley.
- d. 9. N. India. In exchange.
- "Not an uncommon species in the warm glens of the Masuri Hills during the summer months, and it is common in the Dhoon. Its flight is somewhat heavy and unsteady."—(Captain T. Hutton, Trans. Ent. Soc. V. p. 49.)

202. PAPILIO MEMNON, Linnæus.

- ¿ Papilio Memnon, Linnæus, S. N. 11. p. 747 (1767).
 Cramer, Pap. Exot. 1. t. 91, f. C. Fabricius, Ent. Syst. 141. 1. p. 12. Herbst, Pap. t. 6, f. 2, 3.
 Esper, Ausl. Schmett. t. 20, f. 3. Godart, Enc. Méth. 1X. p. 29. Swainson, Zool. Ill. 2nd ser. t. 95. De Haan, Verh. Naturl. Gesch. p. 23, t. 3, f. 1. Boisdwal, Spéc. Gén. Lép. 1, p. 192. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 2; id. Diurnal Lep. p. 10, n. 30. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 13, No. 47; id. List Lep. Brit. Mus. pt. 1. p. 14.
 - Hiades Memnon, Hübner, Verz. bek. Schmett. p. 89.
 - Papilio Arbates, Zinken-Sommer, Nova Acta Acad. Nat. Cur. XV. p. 151 (1831).
- a. b. c. d. Java. From Dr. Horsfield's Collection.
- Var. A. & Papilio Androgeos, Cramer, Pap. Exot. I. t. 91, f. A. B. (1775).
 - Papilio Memnon, Esper, Ausl. Schmett. t. 8, f. 1.
 - Hiades Mestor, Hübner, Verz. bek. Schmett. p. 89 (1816).
 - d. 3. Pinang. Presented by Dr. Cantor, 1844.
 - e. J. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

Var. B. 9 Papilio Anceus, Cramer, Pap. Exot. III. t. 222, f. A. B. (1780).

Iliades Anceus, Hübner, Verz. bek. Schmett. p. 88.

- Var. C. ? Papilio Laomedon, Cramer, Pap. Exot. I. t. 50, f. A. B. (1775).
 - Iliades Laomedon Hübner, Verz. bek. Schmett. p. 89.
 - Papilio Memnon (pt.), Fabricius, Ent. Syst. III. I. p. 12.
 - f. 9. Java. From Dr. Horsfield's Collection.
 - Var. D. Papilio Memnon, var. d., G. R. Gray.
 - g. h. ♀. Cherra Poonjee. Presented by Colonel Buckley.
- Var. E. ? Papilio Laomedon, var., De Haan, Verh. Nat. Gesch. p. 24, t. 3, f. 2.
 - Var. F. Papilio Memnon, var. f., G. R. Gray.
- Var. G. Q Papilio Agenor, Linnæus, Syst. Nat. II. p. 747 (1767).

 Clerck, Icon. t. 15. Cramer, Pap. Exot. 1. t. 32,
 f. A.B. Fabricius, Ent. Syst. III. I. p. 13. Herbst,
 Pap. t. 8, f. 3. Esper, Ausl. Schmett. t. 26, f. 1.
 Donovan, Ins. of China, t. 24, f. 2. Godart, Enc.
 Méth. IX. p. 28.

Iliades Agenor, Hübner, Verz. bek. Schmett. p. 89.

- i. j. \(\varphi \). Java. From Dr. Horsfield's Collection.
- Var. H. Q Papilio Achates, var., De Haan, Verh. Nat. Gesch. p. 24, t. 3, f. 3.
 - Var. I. ? Papilio Achates, Cramer, Pap. Exot. II. t. 182, f. A. B.; t. 243, f. A. (1777). Fabricius, Ent. Syst. III. I. p. 9. Herbst, Pap. t. 15, f. 1. Esper, Ausl. Schmett. t. 28, f. 1. Godart, Enc. Méth. IX. p. 64. Achillides Achates, Hübner, Verz. bek. Schmett. p. 85. Papilio Achatiades, Esper, Ausl. Schmett. t. 28, f. 2,
 - Papilio Achatiades, Esper, Ausl. Schmett. t. 28, f. 2, t. 29, f. 1.
 - k. l. m. n. 9. Java. From Dr. Horsfield's Collection.
- Var. K. ? Papilio Alcanor, Cramer, Pap. Exot. II. t. 166, f. A. (1776). Esper, Ausl. Schmett. t. 34, f. 2.
 Achillides Alcanor, Hübner, Verz. bek. Schmett. p. 85.

- Papilio Alphenor, Fabricius, Spec. Ins. II. p. 4. Herbst, Pap. t. 16, f. 1.
- o. 9. Cherra Poonjee. Presented by Colonel Buckley.

The larva and pupa of *Papilio Memnon* are figured on Plate II., fig. 7, 7a, from Java.

203. PAPILIO POLYMNESTOR, Cramer.

Papilio Polymnestor, Cramer, Pap. I. t. 53, f. A. B. (1775). Fabricius, Ent. Syst. III. I. p. 18. Herbst, Pap. t. 7, f. 3, 4. Esper, Ausl. Schmett. t. 19, f. 1. Donovan, Ins. of Ind. t. 23, f. 2. Godart, Enc. Méth. IX. p. 29. Lucas, Lep. Exot. t. 12, f. 1. Boisduval, Spéc. Gén. Lép. I. p. 191. De Haan, Verh. Naturl. Gesch. p. 23. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 2; Diurnal Lep. p. 10, n. 29. G. R. Gray, Cat. Lep. Brit. Mus. p. 12, n. 46; id. List Lep. Brit. Mus. pt. I. p. 14.

Iliades Polymnestor, Hübner, Verz. bek. Schmett. p. 88.

- a. d. Calcutta. Presented by Colonel Buckley.
- b. Q. N. India. From the Asiatic Society of Bengal.
- c. Ceylon. Drawing. From Jonville's Collection.

The larva and pupa of *Pap. Polymnestor* are figured on Plate III., fig. 1, 1a, from Ceylon, where discovered by E. L. Layard, Esq.

204. PAPILIO ISWARA, White.

Papilio Iswara, White, Entomologist (1842), p. 280. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 4; Diurnal Lep. p. 11, n. 58, t. 2, f. 1. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 19, n. 78; id. List Lep. Brit. Mus. pt. I. p. 23.

a. \(\begin{aligned} \text{Pinang.} & \text{Presented} & \text{by the Trustees of the British Museum.} \end{aligned} \)

205. PAPILIO HELENUS, Linnaus.

Papilio Helenus, Linnæus, S. N. II. p. 754 (1767).

Clerck, Icon. t. 13, f. 2. Cramer, Pap. t. 153,
f. A. B. Fabricius, Ent. Syst. III. I. p. 2. Herbst,
Pap. t. 14, f. 2. Esper, Ausl. Schmett. t. 2, f. 2.

Godart, Enc. Méth. IX. p. 68. Lucas, Lep. Exot. t. 15, f. 2. Boisduval, Spéc. Gén. Lép. I. p. 211. De Haan, Verh. Naturl. Gesch. p. 30. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 4; Diurnal Lep. p. 11, n. 57. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 18, n. 77; id. List Lep. Brit. Mus. pt. I. p. 23.

Achillides Helenus, Hübner, Verz. bek. Schmett. p. 85.

- a. b. ♂ ?. Java. From Dr. Horsfield's Collection.
- c. d. Darjeeling. From Pearson's Collection.
- $d. \ ?$. Darjeeling. Presented by Colonel Buckley.
- e. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

The larva and pupa of *Pap. Helenus* are figured on Plate III., fig. 2, 2a, from Canara, where discovered by S. N. Ward, Esq., E. I. C. civil service.

206. PAPILIO CHAON, Westwood.

Papilio Chaon, Westwood, Arcana Ent. t. 72, f. 1, 2 (1845). E. Doubleday, List Lep. Brit. Mus. pt. I. App. p. 2; Diurnal Lep. p. 11, n. 55. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 18, n. 76; id. List Lep. Brit. Mus. pt. I. p. 23.

- a. d. Assam. From the Asiatic Society of Bengal.
- b. ?. Cherra Poonjec. Presented by Colonel Buckley.
- c. J. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.
 - d. S. Var. Borneo. Presented by H. Lowe, Esq.

207. PAPILIO ROMULUS, Cramer.

Papilio Romulus, Cramer, Pap. I. t. 43, f. A. (1775). Esper, Ausl. Schmett. t. 25, f. 2. E. Doubleday, Diurnal Lep. p. 10, n. 26; id. List, p. 13. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 11, n. 42.

Menelaides Romulus, Hübner, Verz. bek. Schmett. p. 84.
Papilio Mutius, Fabricius, Ent. Syst. III. I. p. 3 (1793).
Godart, Enc. Méth. IX. p. 70. Boisduval, Spéc.
Gén. Lép. I. p. 270. E. Doubleday, List Lep. Brit.
Mus. pt. I. p. 10.

- Papilio Mutius, var.,? De Haan, Verh. Naturl. Gesch. p. 6.
- Papilio Astyanax, Fabricius, Ent. Syst. III. I. p. 13 (1793). Donovan, Ins. of Ind. t. 23, f. 1; ex Jones, Icon. ined. I. t. 20. Godart, Enc. Méth. IX. p. 72. Boisduval, Spéc. Gén. Lép. I. p. 271.
- a. b. c. 3 ?. N. India. Presented by the Asiatic Society of Bengal.
- d. 9. Calcutta. Presented by Colonel Buckley.

208. PAPILIO POLYTES, Linnaus.

- Papilio Polytes, Linnœus, & N. II. p. 746 (1767).

 Clerck, Icon. t. 14, f. 1. Cramer, Pap. III. t. 265,
 f. A. B. C. Herbst, Pap. t. 15, f. 2, \(\gamma\), t. 20;
 f. 3, 4, \(\delta\). Fabricius, Ent. Syst. III. pt. I. p. 2.

 Esper, Ausl. Schmett. t. 3, f. 1; t. 12, f. 1. G. R.

 Gray, Cat. Lep. Brit. Mus. pt. 1. p. 20, n. 83; id.

 List Lep. Brit. Mus. pt. 1. p. 25.
- Menelaides Polytes, Hübner, Verz. bek. Schmett. p. 85.
 Princeps Heroicus Stichius, Hübner, Samml. Exot. 1.
 t. 3.
- Papilio Pammon \(\rho \), Boisdural, Spéc. Gén. Lép. I. p. 272.

 De Haan, Verh. Nat. Gesch. p. 41. E. Doubleday,
 List Lep. Brit. Mus. pt. I. p. 11; Diurnal Lep.
 p. 11, n. 62.
- Var. Papilio Numa, Weber, Observ. Entom. Kiel. (1801), p. 106.
 - a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
 - e. f. o ?. Calcutta. From the Asiatic Society of Bengal.
 - g. h. ♂ ♀. N. India. Presented by Colonel Buckley.
 i. ♀. Chusan. Presented by Dr. Cantor, 1842.
- "The larva and pupa of *Pap. Polytes* are figured on Plate III., fig. 3, 3a, from Java, where it feeds on a species of *Citrus*, bearing the native name of *Juruk*, from January to May."—(Horsfield.)
- "Not uncommon in the Dhoon during the rainy season, and at Rajpore, at the foot of the Hills, it is frequently met with."—(Captain T. Hutton, Trans. Ent. Soc. V. p. 49.)

"At Chusan, the perfect insect appears during August and September."—(Dr. Cantor's Notes.)

209. PAPILIO PAMMON, Linnæus.

Papilio Pammon, Linn., S. N. I. p. 746 (1767). Clerck, Icon. t. 14, f. 2, S. Cramer, Pap. t. 141, f. B. Herbst, Pap. t. 19, f. 4. Fabricius, Ent. Syst. III. pt. I. p. 7. Esper, Ausl. Schmett. t. 4, f. 1; t. 40, f. 1. Godart, Enc. Méth. IX. p. 74. Boisdwal, Spéc. Gén. Lép. I. p. 272. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 10; Diurnal Lep. p. 11, n. 62. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 19, n. 82; id. List Lep. Brit. Mus. pt. 1. p. 24.

Laertias Pammon, Hübner, Verz. bek. Schmett. p. 84.

Princeps Heroicus Pammon, Hübner, Samml. Exot. I. t. 108.

Var. A., G. R. Gray.

Papilio Cyrus, Fabricius, Ent. Syst. III. pt. I. p. 7 (1793).

Laertias Cyrus, Hübner, Samml. Exot. II. t. 96.

Papilio Pammon, var., Stoll, Cramer Pap. Suppl. t. 33, f. 1.

Var. C.

Papilio Ledebouria, Eschscholtz, in Kotzebue Voy. III. t. 3, f. 7.

Papilio Alphenor (Boisd.), &, De Haan, Verh. Nat. Gesch. p. 41.

a. b. c. d. of c. Java. From Dr. Horsfield's Collection.

e.f. J. N. India. In exchange.

g. h. & Q. Chusan. Presented by Dr. Cantor, 1842.

i. 9. N. India. Donor unknown.

The larva and pupa of Pap. Pammon are figured on Plate III., fig. 4, 4a, from Java, "and feeds on a species of Citrus, bearing the native name of Juruk,—November to April. Note.—Every variety of Juruk, or Orange (Gulug, Kina, Pichet, &c.), produces a different butterfly, although scarcely any difference appears in the caterpillar."—(Horsfield, MS. Notes.)

R. Templeton, Esq., states that "the male of P. Pammon has a

little white mark near the anal angle of the posterior wing; the female an ocellus exactly resembling that of P. Polytes; all the other markings are the same in both [sexes,] except in the females they are larger and longer. The larvæ are particularly destructive to the lime-trees in Ceylon, as are also those of P. Polymnester, Polydorus, and Hector."—(Ent. Trans. V. p. 44.)

"At Chusan, the perfect insect was observed from July to September, inclusive."—(Dr. Cantor's Notes.)

"This is the most common species of the genus, being sometimes seen in dozens in the same field at Rajpore, and elsewhere in the Dhoon, during the months of August and September; nor are they uncommon in the glens of the mountains."—(Captain T. Hutton, Trans. Ent. Soc. V. p. 50.)

210. PAPILIO DEMOLION, Cramer.

Papilio Demolion, Cramer, Pap. I. t. S9, f. A. B. (1775).
Herbst, Pap. t. 49, f. 1, 2. E. Doubleday, Diurnal Lep. p. 13, n. 94. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 25, n. 116; id. List Lep. Brit. Mus. pt. 1. p. 34.

Papilio Cresphontes, Fabricius, Ent. Syst. 111. 1. p. 33 (1793). Godart, Enc. Méth. 1X. p. 61. Boisduval, Spéc. Gén. Lép. I. p. 220. Lucas, Lep. Exot. t. 15, f. 1. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 4.

Heraclides Cresphontes, Hühner, Verz. bek. Schmett. p. 84.

a. b. ♂ ♀. Java. From Dr. Horsfield's Collection.

c. d. Pinang. Presented by Dr. Cantor.

d. e. 3 ?. Borneo. Presented by H. Low, Esq.

The larva and pupa of *Pap. Demolion* are figured on Plate III., fig. 5, 5a, from Java; "and feeds on a species of *Fagara*, which bears the native name of *Sampang*,—March and April."—(Horsfield.)

211. PAPILIO ERITHONIUS, Cramer.

Papilio Erithonius, Cramer, Pap. 111. t. 232, f. A. B. (1780). Herbst, Pap. t. 36, f. 5, 6. E. Doubleday, Diurnal Lep. p. 12, n. 71. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 21, n. 92; id. List Lep. Brit. Mus. pt. I. p. 28.

Princeps Dominans Erithonius, Hübner, Samml. Exot. I. t. 116.

Papilio Epius, Fabricius, Ent. Syst. III. I. p. 35 (1793).

Jones, Icon. ined. I. t. 61. Donovan, Ins. of China, t. 29, f. 2. Godart, Enc. Méth. IX. p. 43. Boisdwal, Spéc. Gén. Lép. I. p. 238. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 7.

Orpheides Epius, Hübner, Verz. bek. Schmett. p. 86.

Papilio Demoleus, apud Esper, Ausl. Schmett. t. 50, f. 1, 4.

- u. Canara. Presented by S. N. Ward, Esq.
- b. c. 3 9. Calcutta. Presented by Colonel Buckley.
- d. Pinang. Presented by Dr. Cantor.

The larva and pupa are figured on Plate III., fig. 6, 6a, the discovery of which we owe to S. N. Ward, Esq., of the Madras civil service, from whose drawing our figures were copied.

Among the drawings made by Lady Gilbert in India, the transformations of this species are given, and her ladyship states the larva was brought to her on a branch of orange-tree on the 3rd July, and on the 8th it changed to a chrysalis, the perfect insect emerging on the 17th.

"The male of *P. Erithonius* is without the blue lunule, the female has it; and both sexes vary in having or not having one or two spots outside the closing vein of the discoidal cell of the lower wing; beneath, the markings in both are nearly identical, lunule and all."—(R. Templeton, Esq., Trans. Ent. Soc. V. p. 44.)

"Occurs in the Deyrah Dhoon, and likewise in the Hills during summer. I have received it from Madras, and frequently took it at Neemuch, in Western India. The larva feeds on the Citron, and is green, with a reddish or orange-coloured head; the fourth segment of the body is also bordered with the same colour, and there is a lateral oblique stripe on the hinder parts, which is blackish and edged with white; the spiracles are black: there are two short tentacular horns projecting from the anterior segment and two others from the anal segment, beneath which latter is a whitish stripe, running obliquely forwards and downwards; a white lateral stripe above the legs, which are yellowish."—(Captain T. Hutton, Proc. Ent. Soc. V. p. 48.)

212. PAPILIO ARJUNA, Horsfield.

Papilio Arjuna, Horsfield, Cat. Lep. Mus. E. I. C. t. 1, f. 4 (1828). Boisduval, Spéc. Gén. Lép. I. p. 209. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 4; Diurnal Lep. p. 11, n. 53. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 17, n. 69; id. List Lep. Brit. Mus. pt. 1. p. 21.

Papilio Paris, var., Godart, Enc. Meth. IX. p. 67.

Papilio Paris, Zinken-Sommer, Nova Acta Acad. Nat. Cur. XV. p. 142.

a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Pap. Arjuna* are figured on Plate III., fig. 7, 7a, from Java. "Feeds on a species of *Citrus*,—December."—(Horsfield.)

213. PAPILIO PARIS, Linnœus.

Papilio Paris, Linnæus, S. N. II. p. 745 (1767). Clerck, Icones, t. 13, f. 1. Cramer, Pap. t. 103, f. A. B. Drury, Ins. I. t. 12, f. 1, 2. Fabricius, Ent. Syst. III. I. p. 1. Herbst, Pap. t. 14, f. 1, 2. Esper, Ausl. Schmett. t. 2, f. 1. Donovan, Ins. of China, t. 23. Godart, Enc. Méth. IX. p. 67. Boisduval, Spéc. Gén. Lép. I. p. 208. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 4; Diurnal Lep. p. 11, n. 52. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 17, n. 68; id. List Lep. Brit. Mus. pt. I. p. 21.

Achillides Paris, Hübner, Verz. bek. Schmett. p. 85.

- a. b. 3. Cherra Poonjee. Presented by Colonel Buckley.
- c. d. Darjeeling. From Pearson's Collection.
- d. \(\varphi \). N. India. Presented by Lieutenant Hugo James.
- e. d. Var. Canara. Presented by S. N. Ward, Esq.

214. PAPILIO GANESA, E. Doubleday.

Papilio Ganesa, E. Doubleday, Gray's Zool. Misc. p. 73 (1842); List Lep. Brit. Mus. pt. I. p. 4; Diurnal

- Lep. p. 11, n. 48. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 16, n. 66; id. List Lep. Brit. Mus. pt. I. p. 20.
- a. d. Darjeeling. From Pearson's Collection.
- b. J. N. India. Presented by the Trustees of the British Museum.
- c. d. e. 3 2. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

215. PAPILIO ARCTURUS, Westwood.

Papilio Arcturus, Westwood, Ann. N. H. IX. p. 37 (1842); Arcana Ent. t. 27. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 3; Diurnal Lep. p. 11, n. 47. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 17, n. 67; id. List Lep. Brit. Mus. pt. 1. p. 21.

- a. b. J. Darjeeling. Presented by Colonel Buckley.
- c. \circ . Darjeeling. From Dr. Pearson's Collection.
- d. \circ . Darjeeling. From the Asiatic Society of Bengal.

216. PAPILIO KRISHNA, Moore (Plate IIa., fig. 6).

Papilio Krishna, n. sp.-UPPER-SIDE black, irrorated with goldengreen atoms; fore-wing with a well-defined transverse fascia of deep golden-green atoms from anterior margin, commencing at one-third of the length of the wing from the apex to posterior margin near the angle; hind-wing with a brilliant sky-blue sinuated patch near anterior angle, and connected with abdominal margin by a broad welldefined sinuous line of deep golden-green atoms; near the margin is a series of five crimson lunules, margined inwardly by a purplish-blue line, the one on the abdominal margin inclosing at the anal angle a black spot, which is bounded at the angle with ferruginous; the space between the sinuous line and patch and the lunules is pure black, without irrorations; the space from the lunules and down middle of tail with golden-green irrorations; indentations margined with white, and tinged inwardly with ferruginous. Under-side black; both pair of wings basally irrorated with golden-green and whitish atoms; fascia of fore-wing creamy-white; hind-wing with creamy-white fascia from anterior margin near angle to middle of the wing, then branching upwards to abdominal margin; lunules seven in number, brighter and broader than in upper-side; the indentations and anal angle with broad pale ferruginous lunules.

- a. 3. Bootan. From Pemberton's Collection.
- b. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

217. PAPILIO POLYCTOR, Boisduval.

Papilio Polyctor, Boisduval, Spéc. Gén. Lép. I. p. 205 (1836). Blanchard, Voy. de Jacquemont, Ins. t. 1, f. 1, 2. Kollar, in Hügel's Kaschmir, pt. II. p. 403. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 3; Diurnal Lep. p. 11, n. 46. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 16, n. 65; id. List Lep. Brit. Mus. pt. 1. p. 20.

a. b. c. d. 3 ?. N. India. Presented by Colonel Buckley.

218. PAPILIO CRINO, Fabricius.

Papilio Crino, Fabricius, Ent. Syst. III. I. p. 5 (1793).
Donovan, Ins. of China, t. 22; ex Jones, Icon. incd.
I. t. 53. Godart, Enc. Méth. IX. p. 66. Boisdwal, Spéc. Gén. Lép. 1. p. 207. Guérin, Rev. Zool. (1840), p. 43, t. 1, f. 1. E. Doubleday, List Lep. Brit. Mus. pt. I. App. p. 1; Diurnal Lep. p. 11, n. 50. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 18, n. 73; id. List Lep. Brit. Mus. pt. I. p. 22.
Papilio Palinurus, var. (?), De Haan, Verh. Natur. Gesch.

pp. 6, 28, t. 7, f. 3.

- a. 3. Ceylon. Donor unknown.
- b. \(\gamma\). Ceylon. From T. Tatum, Esq.

219. PAPILIO PERANTHUS, Fabricius.

Papilio Peranthus, Fabricius, Ent. Syst. III. I. p. 15 (1793). Donovan, Ins. of China, t. 26. Godart, Enc. Méth. IX. p. 66. Lucas, Lep. Exot. t. 12, f. 2. Boisduval, Spéc. Gén. Lép. 1. p. 203. De Haan, Verh. Natur. Gesch. p. 27. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 3; Diurnal Lep. p. 11,

n. 44. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 16, n. 63; id. List Lep. Brit. Mus. pt. I. p. 20.

a. b. c. d. 3 ?. Java. From Dr. Horsfield's Collection.

220. PAPILIO BIANOR, Cramer.

Papilio Bianor, Cramer, Pap. II. t. 103, f. C. (1776).

Fabricius, Ent. Syst. III. I. p. 1. Esper, Ausl.

Schmett. t. 35, f. 2. Boisdaval, Spéc. Gén. Lép. I.

p. 205. De Haan, Verh. Natur. Gesch. p. 28, t. 5,

f. 1, &; f. 2, &. E. Doubleday, List Lep. Brit.

Mus. pt. I. p. 3; Diurnal Lep. p. 11, n. 45. G. R.

Gray, Cat. Lep. Brit. Mus. pt. I. p. 16, n. 64; id.

List Lep. Brit. Mus. pt. I. p. 20.

Achillides Bianor, Hübner, Verz. bek. Schmett. p. 85. Papilio Paris ?, Godart, Enc. Méth. 1X. p. 67.

a. \(\varphi\). N. India. Presented by the Trustees of the British Museum.

221. PAPILIO GYAS, Westwood.

Papilio Gyas, Westwood, Arcana Ent. t. 11, f. 1 (1842).
E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 3;
Diurnal Lep. p. 10, n. 43. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 16, n. 62; id. List Lep. Brit. Mus. pt. 1. p. 20.

a. b. ♂ ♀. Darjeeling. From Pearson's Collection.

222. PAPILIO PAYENI, Boisduval.

Papilio Payeni, Boisduval, Spéc. Gén. Lép. I. p. 235 (1836). Van der Hoeven, Tijdsch. voor Nat. Gesch. V. t. 8, f. 1, 2, 6. E. Doubleday, Diurnal Lep. p. 14, No. 103. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 27, n. 125.

Papilio Evan, E. Doubleday, Ann. Nat. Hist. XVI. n. s.
 pp. 235, 304 (1845); List Lep. Brit. Mus. pt. I.
 App. p. 2; Diurnal Lep. p. 14, No. 104, t. 2, f. 1.
 Westwood, Cab. Orient. Ent. t. 31, f. 1.

a. d. Darjeeling. From Messrs. Schlagintweit's Collection.

223. PAPILIO XUTHUS, Linnaus.

Papilio Xuthus, Linnæus, S. N. II. p. 751 (1767).

Cramer, Pap. I. t. 73, f. A. B. Drury, Ins. II. t. 9, f. 2. Fabricius, Ent. Syst. III. I. p. 32. Herbst, Pap. t. 49, f. 3, 4. Godart, Enc. Méth. IX. p. 58. Boisduval, Spéc. Gén. Lép. I. p. 327, t. 1, f. 1, 2. Lucas, Lep. Exot. t. 19, f. 1. Herr. Schæff. Suppl. f. 411—413. De Haan, Verh. Natur. Gesch. p. 41. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 15; Diurnal Lep. p. 16, n. 157. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 36, n. 178; id. List Lep. Brit. Mus. pt. I. p. 49.

Jasoniades Xuthus, Hübner, Verz. bek. Schmett. p. 83.

- a.b. d. N. India. In exchange.
- c. 9. Chusan. Presented by Dr. Cantor, 1844.

The larva of Pap. Xuthus is figured on Plate IV., fig. 1, copied from De Haan's figure.

"At Chusan, the perfect insect appears during August and September."—(Dr. Cantor's Notes.)

224. PAPILIO MACHAON, Linnæus.

Papilio Machaon, Linnæus, S. N. 11. p. 750 (1767).

Ræsel, Ins. I. II. t. 1. Fabricius, Ent. Syst. 111. 1.
p. 30. Herbst, Pap. t. 45, f. 1, 2. Hübner, Eur. Schmett. f. 390, 391. Godart, Enc. Méth. 1X. p. 57.

Boisduval, Spéc. Gén. Lép. I. p. 328. G. R. Gray, Lep. Ins. of Nepal, p. 6, t. 3, f. 1. Kollar, in Hügel's Kaschmir, pt. 11. p. 406. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 15; Diurnal Lep. p. 16, n. 158. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 37, n. 180; id. List Lep. Brit. Mus. pt. I. p. 50.

Pieris Machaon, Schrank.

Jasoniades Machaon, Hübner, Verz. bek. Schmett. p. 83.

Amaryssus Machaon, Dalm., Königl. Vet. Acad. Holm. XXXVII. p. 85 (1816).

Var. ? Papilio Machaon, De Haan, Verh. Natur. Gesch. 7. 42, t. 5, f. 2.

Var. Papilio Sphyrus, Hübner, Europ. Schmett. f. 776, 777.

- a. d. Himalaya. From the Asiatic Society of Bengal.
- b. c. ♂ ♀. N. India. Presented by Colonel Buckley.
- d. &. Kumaon. Presented by Dr. McClelland.
- e. 9. Bootan. From Dr. Pemberton's Collection.

The transformations of Pap. Machaon are copied from Duponchel's work, and are figured on Plate IV., fig. 2, 2a.

Captain T. Hutton remarks: "P. Machaon is seen on the wing at Deyrah, in the valley of the Dhoon, as early as February, and in April its larvæ are abundant there on the Carrot. At Masuri, in the Hills, it appears in the latter end of March, and continues till October. The larva is green, with a black velvety transverse band across each segment, bearing four spots of bright orange; it possesses the orange-coloured retractile process in the head, from which exudes a liquid drop of a strong aromatic scent, when the insect is touched, precisely as in the European larva. The food is the wild and garden Carrot, and the leaves and flowers of the Radish. I have taken the larvæ at Masuri early in May, and the pupa on the 18th May. It is abundant about Simla, and extends far into the interior."—(Ent. Trans. V. p. 47.)

225. PAPILIO CLOANTHUS, Westwood.

Papilio Cloanthus, Westwood, Arcana Ent. p. 42, t. 11, f. 2 (1842). Kollar, in Hügel's Kaschmir, pt. 11. p. 405. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 6; Diurnal Lep. p. 14, n. 116. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 28, n. 136; id. List Lep. Brit. Mus. pt. 1. p. 40.

a. b. 3 ?. N. India. Presented by Colonel Buckley. c. ?. N. India. From T. Tatum, Esq.

"This is very common in fine warm weather, flitting with great rapidity over the tops of the loftiest trees. It usually selects some lofty oak, over the summit of which it continues to dance with a jerking flight, like that of *P. Sarpedon*, until its domain is invaded by another individual, when a rapid chase round and round the tree takes place: one while they dart away from the tree down the side of the steep mountain, but ever and anon return to the favourite tree, until one is fairly driven off, when the other resumes its dance as before. It is difficult to capture, from its high and rapid flight.

It appears at the end of April, and continues throughout the summer."—(Captain T. Hutton, Tr. Ent. Soc. V. p. 51.)

226. PAPILIO SARPEDON, Linnœus,

Papilio Sarpedon, Linn., S. N. II. p. 747 (1767). Ræsel,
Ins. IV. t. 6, f. 1. Cramer, Pap. II. t. 122,
f. D. E. Fabricius, Ent. Syst. 111. pt. I. p. 14.
Herbst, Pap. t. 10, f. 4, 5. Esper, Ausl. Schmett.
t. 8, f. 2. Godart, Enc. Méth. IX. p. 46. Lucas,
Lep. Exot. t. 5, f. 1. Boisduval, Spéc. Gén. Lép. I.
p. 235. De Haan, Verh. Natur. Gesch. p. 34. E.
Doubleday, List Lep. Brit. Mus. pt. 1. p. 6; Diurnal
Lep. p. 14, n. 115. G. R. Gray, Cat. Lep. Brit.
Mus. pt. I. p. 28, n. 135; id. List Lep. Brit. Mus.
pt. 1. p. 39.

Zetides Savpedon, Hübner, Verz. bek. Schmett, p. 85; id. Samml. Exot. 111, t. 471.

Chlorisses Sarpedon, Swainson, Zool. Ill. 2nd ser. t. 89.

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. d. Canara. Presented by S. N. Ward, Esq.
- f. N. India. Presented by Colonel Buckley.

The larva and pupa of Pap. Sarpedon are figured on Plate III., fig. 8, 8a; the larva copied from De Haan's figure, and the pupa from E. L. Layard's drawing, from Ceylon.

Mr. Edgar L. Layard states that the larva of Pap. Sarpedon, as observed in Ceylon, feeds on Cinnamon and Sour-sop.

"At Masuri this is one of the commonest, but not the least beautiful, of our butterflies; it appears early in May, and is found till the end of the rains in September. It usually frequents the top of oak-trees, where it flits about with a jumping or jerking flight, and is somewhat difficult to capture, from its quickness, and the height at which it keeps."—(Captain T. Hutton, Proc. Ent. Soc. V. p. 51.)

227. PAPILIO EURYPYLUS, Linnœus.

Papilio Eurypylus, Linnæus, S. N. 11. p. 754 (1767). Clerck, Icon. t. 28, f. 2. Cramer, Pap. 11. t. 122, f. C. D. Fabricius, Ent. Syst. 111. 1. p. 20. Herbst, Pap. t. 37, f. 5, 6. Esper, Ausl. Schmett. t. 33, f. 1. Godart, Enc. Méth. IX. p. 45. Boisduval, Spéc.

VOL. 1, Q

Gén. Lép. I. p. 233. De Haan, Verh. Natur. Gesch. p. 33. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 6; Diurnal Lep. p. 14, n. 113. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 28, n. 133; id. List Lep. Brit. Mus. pt. I. p. 38.

Zetides Eurypylus, Hübner, Verz. bek. Schmett. p. 86; id. Samml. Exot. II. t. 106.

Papilio Jason, apud Esper, Ausl. Schmett. t. 58, f. 5.

- $u, b, \beta \gamma$. Java. From Dr. Horsfield's Collection.
- c. δ . Silhet. Presented by Colonel Buckley.
- d. e. 3 9. N. India. From the Asiatic Society of Bengal.

228. PAPILIO BATHYCLES, Zinken-Sommer.

Papilio Bathyeles, Zinken-Sommer, Nova Acta Acad. Nat. Cur. XV. t. 14, f. 6, 7 (1831). Boisdwal, Spéc. Gén. Lép. 1. p. 232. Lucas, Lep. Exot. t. 5, f. 2. De Haan, Verh. Natur. Gesch. p. 33. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 6; Diurnal Lep. p. 14, n. 111. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 28, n. 132; id. List Lep. Brit. Mus. pt. 1. p. 38.

- a. b. ?. N. India. Presented by the Trustees of the British Museum.
- c. d. 3 \cong . Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

229. PAPILIO AGAMEMNON, Linnaus.

Papilio Agamemnon, Linnæus, S. N. II. p. 748 (1767).
Fabricius, Ent. Syst. 1II. I. p. 33. Herbst, Pap. t. 48, f. 1, 2. Esper, Ausl. Schmett. t. 46, f. 1, 2, 3.
Donovan, Ins. of China, t. 27, f. 2. Godart, Enc. Méth. IX. p. 46. Boisduval, Spéc. Gén. Lép. I. p. 230. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 5; Diurnal Lep. p. 14, n. 109. G. R. Gray, Cut. Lep. Brit. Mus. pt. 1. p. 27, n. 130; id. List Lep. Brit. Mus. pt. 1. p. 37.

Papilio Ægistus, rel Agamemnon, Cramer, Pap. t. 106.

- Iphiclides Agamemnon, Hübner, Verz. bek. Schmett. p. 82.
- a. b. & Q. Java. From Dr. Horsfield's Collection.
- c. d. 3. Silhet. Presented by Colonel Buckley.
- e. 9. Dukhun. Presented by Colonel Sykes.

The larva and pupa of *Papilio Agamemnon* are figured on Plate III., fig. 9, 9a, from Java, "where it feeds on a species of *Uvaria*, bearing the native name of *Kalak*,—December."—(Horsfield.)

230. PAPILIO NOMIUS, Esper.

- Papilio Nomius, Esper, Ausl. Schmett. t. 52, f. 3 (1785).

 Boisduval, Spéc. Gén. Lép. 1, p. 650. E. Doubleday, Diurnal Lep. p. 14, n. 119.
- Papilio Orestes, Fabricius, Ent. Syst. 111. 1. p. 34 (1793); ex Jones, Icon. ined. 1. t. 79. Godart, Enc. Méth. 1X. p. 48. Boisduval, Spéc. Gén. Lép. 1. p. 378. Westwood, Arcana Ent. p. 154. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 8. G. R. Gray, Cut. Lep. Brit. Mus. pt. 1. p. 29, n. 139; id. List Lep. Brit. Mus. pt. 1. p. 40.
- Papilio Niamus, Godart, Enc. Méth. 1X. p. 51 (1816). Swainson, Zool. Ill. 2nd ser. t. 32.
- Princeps Heroicus Meges, Hübner, Samml. Exot. 1. t. 106.
- 1phielides Meges, Hübner, Verz. bek. Schmett. p. 82.
- a. b. c. ♂ ♀. N. India. From the Asiatic Society of Bengal.

231. PAPILIO ANTICRATES, E. Doubleday.

- Papilio Antierates, E. Doubleday, Ann. N. II. XVIII.
 p. 371 (1846); Diurnal Lep. p. 14, n. 120; List
 Lep. Brit. Mus. pt. I. App. p. 2. G. R. Gray,
 Cat. Lep. Brit. Mus. pt. I. p. 29, n. 140, t. 3,
 f. 3, 3a; id. List Lep. Brit. Mus. pt. 1. p. 41.
- a. d. N. India. Donor unknown.
- b. c. J. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

232. PAPILIO ANTIPHATES, Cramer.

Papilio Antiphates, Cramer, Pap. I. t. 72, f. A. B. (1775). Fabricius, Ent. Syst. III. 1. p. 24; Jones, Icon. ined. t. 84. Herbst, Pap. t. 43, f. 1, 2. Godart, Enc. Méth. IX. p. 49. Boisduval, Spéc. Gén. Lép. I. p. 248. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 8; Diurnal Lep. p. 15, n. 125. G. R. Gray, Cat. Lep. Brit. Mus. pt. I. p. 31, n. 147; id. List Lep. Brit. Mus. pt. 1. p. 42.

Iphiclides Antiphates, Hübner, Verz. bek. Schmett. p. 82.
Papilio Alcibiades, Fabricius, Ent. Syst. III. pt. I. (1793),
p. 25. Godart, Enc. Méth. IX. p. 49.

Papilio Pompilius, Fabricius, Ent. Syst. 111. I. p. 25 (1793). Godart, Enc. Méth. 1X. p. 49. Lucas, Lep. Exot. t. 22, f. 1.

Podalirius Pompilius, Swainson, Zool. Ill. 2nd ser. t. 105.

- u. b. of ♀. Java. From Dr. Horsfield's Collection.
- c. d. 3. Silhet. Presented by Colonel Buckley.
- e. 9. Borneo. Presented by H. Low, Esq.

The larva and pupa of Pap. Antiphates are figured on Plate 111., fig. 10, 10a, from Java, "where it feeds on the same plant as Pap. Agamemnon."

233. PAPILIO AGETES, Westwood.

Papilio Agetes, Westwood, Arcana Ent. t. 56, f. 1, 2 (1844). E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 7; Diurnal Lep. p. 15, n. 123. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 31, n. 145; id. List Lep. Brit. Mus. pt. 1. p. 41.

- n. 9. N. India. Presented by the Trustees of the British Museum.
- b. J. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

234. PAPILIO GLYCERION, G. R. Gray.

Papilio Glycerion, G. R. Gray, Lep. Ins. of Nepal, p. 6,
 t. 3, f. 2 (1831). J. E. Gray's Zool. Misc. (1832),
 p. 32. Boisduval, Spéc. Gén. Lép. 1. p. 247. West-

wood, Arcana Ent. t. 55, f. 3. E. Doubleday, List Lep. Brit. Mus. pt. 1, p. 8; Diurnal Lep. p. 15, n. 122. G. R. Gray, Cat. Lep. Brit. Mus. pt. 1. p. 31, n. 144; id. List Lep. Brit. Mus. pt. 1. p. 41.

a. b. ♂ ♀. N. India. Presented by Colonel Buckley.
c. d. ♂. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

REMARKS ON THE CHILOGNATHIFORM, OR JULIFORM, STIRPS.

For the description of the larva and pupa of this Stirps, I refer the reader to the 12th page of the Introductory Remarks.

The Imago, or perfect insect, exhibits in the typical group the most perfect production of the whole order. The beauty of many of the large Papiliones is a subject of universal admiration: several of them are unrivalled in form and colouring.

Linnaus divides the genus Papilio into several phalanges. The first in order of these phalanges are designated Nobiles, the last Plebeii. The former of these, the Equites, is subdivided into—a, Troes, and b, Achivi. In these groups he perpetuates in Entomology, by a beautiful allegorical comparison, the names of the most distinguished heroes of Homer's Iliad, besides many other names renowned in ancient history.

Of the character of the wings no description can be given which would apply to the whole stirps. In the Pieridæ, the anterior wings are in general triangular, and the posterior wings short and obtuse. In the typical group, Papilio, the posterior wings are slightly falcate on the inner-margin, to give a free passage to the body. In many cases they are provided with tails, which are spatulate or contracted at the base. The Pap. Machaon, swallow-tail, is an example of this division.

The palpi, which in the Vermiform stirps are long, slender, and projecting, are in this stirps diversified in the different groups. In the Pierida they are of moderate length; and in the genus Terias, a diminution of their size is observed; in the typical group, with the exception of the genus Teinopalpus of Hope, they are shorter than the head, closely applied to it, and, in the true Papiliones, never exserted.

The antennæ, in the genus Papilio, exhibit three subdivisions.

First, antennæ filiform at the base, marked along their entire length with prominent annular rings, and terminated by a cylindrical club, which is attenuated at both ends. This division is exemplified in the following species of this Catalogue, viz.:—

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      Pap. Memnon (No. 202).
      Pap. Demolion (No. 210).

      " Polymnestor (No. 203).
      " Erithonius (No. 211).

      " Helenus (No. 205).
      " Arjuna (No. 212).

      " Polytes (No. 208).
      " Xuthus (No. 223).

      " Pammon (No. 209).
      " Machaon (No. 224).
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And by the metamorphoses of these species, viz. :-

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Pap. Alcinous, Plate II. f. 6
                                     Pap. Demolion, Plate III. f. 5,5a
     Memnon.
                       11. f. 7, 7a
                                           Erithonius,
                                                              III. f. 6.6a
      Polymnestor,,
                       III. f. 1, 1a
                                           Arjuna,
                                                             111. f. 7,7a
     Helenus,
                        111. f. 2, 2a
                                           Xuthus,
                                                             1V. f. 1
     Polytes,
                        111. f.3,3a
                                           Machaon,
                                                             IV. f. 2, 2a
     Pammon,
                        III. f. 4, 4a
```

The larva of this division is characterized by a smooth surface, and by a swelling or intumescence of the fourth or fifth segment of the body, from which it tapers more abruptly to the head, and in a gradual manner to the anal extremity. It is typical of the whole stirps, and represents, par excellence, the Chilognathiform division.

In the second division of the genus Papilio, the antenna agree in form and outline with those of the first, but the annuli, or rings, along their entire length are comparatively obscure. This division is exemplified in the following species of this Catalogue, viz.:—

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Ornithoptera Darsius (No. 176). Papilio Hector (No. 189).
"Pompeus (No. 177). "Diphilus (No. 190).
Papilio dissimilis (No. 187).
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And the metamorphoses of the same species, which are figured on Plate 11., figs. 1, 2, 3, 4, and 5.

The larva of this division is cylindrical, very slightly attenuated at the ends, somewhat thick and fleshy, smooth on the surface, and provided with short obtuse tubercles along its entire length. It represents the Chilopodiform modification of the genus Papilio.

In the third division of the genus Papilio, the antennæ are slender, filiform at the base, but terminated by an oval, comparatively enlarged compressed club, on which the annuli are closely arranged and

crowded. This division is exemplified in the following species of this Catalogue, viz.:—

Papilio Sarpedon (No. 226). | Papilio Agamemnon (No. 229).

Papilio Antipathes (No. 232).

And the metamorphoses of the same species, which are figured on Plate III., figs. S, 9, and 10.

The larva of this division is smooth, slightly attenuated towards the extremities, somewhat broader or arched in the middle, and marked with regular transverse bands; but its chief character consists in two projecting points from the abdomen. It forms the Thysanuriform division of the genus Papilio.

The three divisions of the genus Papilio which have here been defined from the materials in the Museum, afford an indication of several distinct types of form, which in the larva state have an evident affinity to the Chilognathiform, Chilopodiform, and the Thysanuriform Ametabola; while, in each of these separate groups, the imago manifests a character which reciprocally confirms the distinct character of these divisions.

Whether in collections of greater extent and from more extensive regions, the Vermiform and Anophuriform representatives may be discovered, is a subject which remains for future research.

The general principle on which these divisions have been established, is in perfect consistence with the law above cited; namely, that in groups of consecutive minor value, the same principle is often found to prevail: of which, Messrs. De Haan and Vigors afford ample confirmation.

Without entering on further details, I submit this point to the consideration of Entomologists.—(Horsfield.)

Stirps III., with CHILOPODIFORM or SCOLOPENDRIFORM Larva.

CHILOPODIFORM OF SCOLOFENDRIFORM, Horsfield, Cat. Lep. Mus. E.I.C. p. 44 (1828).

PAP. DANAI FESTIVI (part), Linnæus.

PAP. NYMPHALES, GEMMATI et PHALERATI (part), Linnæus.

PAP. HELICONII, Linnaus. Fabricius.

Danaides, Boisdaval, Icon. I. p. 84 (1832); id. Spéc. Gén. Lép. I. p. 165 (1836); id. Index Méth. Eur. Lép. p. 15 (1840). Blanchard, Hist. Nat. des Ins. II. p. 330 (1845).

Danaites, Blanchard, Hist. Nat. des Ins. II. p. 330 (1845).

Danaide, E. Doubleday, Diurnal Lep. p. 84 (1847).

Heliconides, Boisduval, Spéc. Gén. Lép. 1. p. 165 (1836).

Heliconide, Westwood, Introd. to Entom. 11. p. 351 (1840). E. Doubleday, Diurnal Lep. p. 96 (1847).

Heliconistes, Blanchard, Hist. Nat. des Ins. II. p. 330 (1845).

ACRAIDA, E. Doubleday, Diurnal Lep. p. 137 (1848).

ARGYNNITES, Blanchard, Hist. Nat. des Ins. II. p. 331 (1845).

ARGYNNIDÆ, Dup. C. p. 2 (1846).

Argynnidi, Stephens, List Brit. Lep. Brit. Mus. pt. I. p. 13 (1850). Stainton, Manual Brit. Butt. pp. 21, 41.

VANESSIDÆ, Dup. C. p. 6 (1846).

Vanessidt, Stephens, List Brit. Lep. Brit. Mus. pt. I. p. 11 (1850). Stainton, Manual Brit. Butt. pp. 21, 36.

LEP. TETRAPODA (part), Latreille, Règ. Anim. V. p. 378 (1829).

NYMPHALIDE (part), Swainson; id. Cab. Cyclop. pp. 86, 92 (1840).

Stephens, Brit. Ent. Haust. 1. p. 27 (1827); id. List Brit. Lep.

Brit. Mus. pt. 1. p. 6 (1850). Westwood, Introd. to Ent. 11.

p. 353 (1840). Dup. C. p. 8 (1846). Doubleday et Westwood,

Diurnal Lep. p. 144 (1852). Stainton, Manual Brit. Butt.

pp. 10, 21 (1856).

Nymphalides (part), Boisduval, Spéc. Gén. Lép. I. p. 165 (1836); id. Index Méth. Eur. Lép. p. 16. Blanchard, Hist. Nat. des Ins. 11. p. 331.

Numphalii et Numphalites (part), Blanchard, Hist. Nat. des Ins. II. pp. 322, 329, 332 (1845).

NYMPHALIDI (part), Stephens, List Brit. Lep. Brit. Mus. pt. 1. p. 10 (1850). Stainton, Manual Brit. Butt. pp. 21, 33 (1856). Peridromide, Boisduval, Spéc. Gén. Lép. 1. p. 164.

Genus DANAIS, Latreille.

DANAIDA, DANAUS, or DANAIS, Latreille (1805).

Danais, Godart, Enc. Méth. 1X. (1819). Boisduval. E. Doubleday, Diurnal Lep. p. 89 (1847).

AMAURIS, HESTIA (part), EUPLIEA, ANOSIA, Hübner, Verz. bek. Schmett. (1816).

235. DANAIS LIMNIACÆ, Cramer Sp.

Papilio Limniaeæ, Cramer, Pap. I. t. 59, f. C. D. (1775).
Danais Limniaeæ, Godart, Enc. Méth. IX. p. 191. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 49; Diurnal Lep. p. 93, n. 31.

Papilio similis, apud Fabricius, Ent. Syst. III. I. p. 58.

- a. b. c. d. ∃ ♀. Java. From Dr. Horsfield's Collection.
- e. f. 3 9. N. India. From the Asiatic Society of Bengal.
- g. J. N. India. Presented by Colonel Sykes.

The larva and pupa of *Danais Limniacæ* are figured on Plate IV., fig. 3, 3a, from Java, "where it feeds on a species of *Epibatherium*, bearing the native name of *Tayungan*,—April."—(Horsfield, MS.)

The transformations of this species were also discovered by General Hardwicke.

236. DANAIS MELISSA, Cramer Sp.

Papilio Melissa, Cramer, Pap. Exot. IV. t. 377, f. C. D. (1782). Herbst, Pap. t. 125, f. 3, 4.

- Danais Melissa, Godart, Enc. Méth. IX. p. 192. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 49; Diurnal Lep. p. 92, n. 28.
- a. b. c. d. ु ९. Java. From Dr. Horsfield's Collection.
- e. J. N. India. Presented by Licutenant Hugo James.
- f. g. d. N. India. Presented by Colonel Buckley.

VOL. I.

237. DANAIS SIMILIS, Linnaus Sp.

- Papilio similis, Linnæus, Syst. Nat. I. p. 479 (1758) id. Linn. Syst. Nat. II. p. 782. Clerck, Icones, t. 16, f. 3.
- Danais similis, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 49; Diurnal Lep. p. 92, n. 30.
- Papilio Aventina, Cramer, Pap. Exot. I. t. 59, f. F. (1775).
- Danais Aventina, Godart, Enc. Méth. IX. p. 191.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. J. N. India. Presented by the Trustees of the British Museum.
- f. d. Borneo. Presented by H. Low, Esq.

238. DANAIS GRAMMICA, Boisduval.

- Danais Grammica, Boisduval, Spéc. Gén. Lép. I. t. 11, f. 10 (1836). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; Diurnal Lep. p. 92, n. 25.
 - a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
 - e. 9. N. India. Presented by Colonel Sykes.

239. DANAIS AGLEA, Cramer Sp.

- Z Papilio Aglea, Cramer, Pap. Exot. IV. t. 377, f. E.
 (1782)
 - Danais Aglea, Bossduval. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; Diurnal Lep. p. 92, n. 22.
 - Danais similis, apud Godart, Enc. Méth. 1X. p. 190.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. J. Bootan. From Pemberton's Collection.
- f. g. J. N. India. Presented by Colonel Sykes.
- h. i. 9. N. India. Presented by Colonel Buckley.

240. DANAIS JUVENTA, Cramer Sp.

Papilio Juventa, Cramer, Pap. Exot. II. t. 188, f. B. (1780).

- Danais Juventa, Godart, Enc. Meth. IX. p. 193. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; Diurnal Lep. p. 93, n. 34.
- Hestia Juventa, Hübner, Verz. bek. Schmett. p. 15 (1816).
- a. b. c. d. 3 ?. Java. From Dr. Horsfield's Collection.
- e. 3. Borneo. Presented by H. Low, Esq.

The larva and pupa of *Danais Juventa* are figured on Plate IV., fig. 4, 4a, from Java, "and feeds on a plant bearing the native name of *Simbukan-rambat*,—April and May."—(Horsfield, MS.)

241. DANAIS CLEONA, Cramer Sp.

- Papilio Cleona, Cramer, Pap. Exot. IV. t. 377, f. F.
 (1782).
 - Danais Cleona, Godart, Enc. Méth. IX. p. 190. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; id. Diurnal Lep. p. 92, n. 27.

Hab. Moluccas (Cramer).

Var. Euplæa Philomela, Zinken-Sommer, in Nova Acta Acad. Curios. XV. t. 16, f. 17 (1831).

Danais Dorippa, Boisduval, MS.

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. J. Borneo. Presented by H. Low, Esq.

242. DANAIS MELANEUS, Cramer Sp.

Papilio Melaneus, Cramer, Pap. Exot. I. t. 30, f. D. (1775).

- Danais Melaneus, Godart, Enc. Méth. IX. p. 192. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 50; Diurnal Lep. p. 93, n. 36.
- a. b. J. N. India. Presented by Lieutenant Hugo James.
- c. ♀. Pinang. Presented by Dr. Cantor.
- d. d. Java. From Mr. Argent's Collection.

243. DANAIS TYTIA, G. R. Gray Sp.

Euplea Tytia, G. R. Gray, Lep. Ins. of Nepal, p. 9, t. 9, f. 2 (1846).

- Danais Tytia, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; Diurnal Lep. p. 93, n. 35, t. 12, f. 4.
- a. 3. Bootan. From Pemberton's Collection.
- b. c. Q. Darjeeling. From Pearson's Collection.
- d. 3. N. India. Presented by Colonel Buckley.
- e. 9. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

244. DANAIS ABLATA, Zinken-Sommer Sp.

Euplea ablata, Zinken-Sommer, in Nova Acta Acad. Curios. XV. t. 16, f. 16 (1831).

Danais ablata, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; Diurnal Lep. p. 93, n. 37.

- a. ♀. Java. From Dr. Horsfield's Collection.
- b. c. d. o o . Java. From Mr. Argent's Collection.

245. DANAIS PHILENE, Cramer Sp.

Papilio Philene, Cramer, Pap. Exot. IV. t. 375, f. A. B. (1782).

Danais Philene, Godart, Enc. Méth. IX. p. 187. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; Diurnal Lep. p. 92, n. 17.

Euplæa Philene, Hübner, Verz. bek. Schmett. p. 15.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Danais Philene* are figured on Plate IV., fig. 5, 5a, from Java, "where it feeds on a species of *Cissus*, bearing the native name of *Galing*,—December."—(Horsfield, MS.)

246. DANAIS PLEXIPPUS, Linnaus Sp.

Papilio Plexippus, Linnaus, Syst. Nat. II. p. 767 (1767). Fabricius, Ent. Syst. III. 1. p. 49.

Danais Plexippus, Godart, Enc. Méth. IX. p. 186. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 51; Diurnal Lep. p. 92, n. 16.

Euplora Plexippus, Hübner, Verz. bek. Schmett. p. 15.

Papilio Genutia, Cramer, Pap. Exot. III. t. 206, f. C.D. (1780).

- a. b. J. N. India. From the Asiatic Society of Bengal.
- c. J. Assam. From Dr. McClelland's Collection.
- d. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

The larva and pupa of *Danais Plexippus* are figured on Plate IV., fig. 6, 6a, copied from General Hardwicke's drawings.

247. DANAIS MELANIPPUS, Cramer Sp.

- Papilio Melanippus, Cramer, Pap. Exot. II. t. 127, f. A. B. (1777).
- Danais Melanippus, Godart, Enc. Méth. IX. p. 189. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- Var. Papilio Hegesippus, Cramer, Pap. Exot. II. t. 180, f. A. (1779). Fabricius, Ent. Syst. III. I. p. 52.
 - Euplæa Hegesippus, Hübner, Verz. bek. Schmett. p. 15.
 - Danais Hegesippus, Godart, Enc. Méth. IX. p. 189. G. R. Gray, Lep. Ins. of Nepal, p. 10, t. 9, f. 1. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 50; id. Diurnal Lep. p. 92, n. 19.
 - Danais Chirona, G. R. Gray, Lep. Ins. of Nepal, p. 10 (1833).
 - e. f. g. \(\begin{align*} \text{N. India.} & \text{Presented by Colonel Buckley.} \)
 h. \(\delta \). Pinang. Presented by Dr. Cantor.

248. DANAIS LOTIS, Cramer Sp.

- Papilio Lotis, Cramer, Pap. Exot. III. t. 230, f. D.E. (1780).
- Danais Lotis, Godart, Enc. Méth. IX. p. 189. E. Doubleday, Diurnal Lep. p. 92, n. 21; List Lep. Brit. Mus. App. 1848, p. 13.
- Hestia Thoë, Hübner, Verz. bek. Schmett. p. 15 (1816).
- Danais Edmondi, Bougainville, Voy. de la Corvette Thétis, i. 44, f. 3, 3 bis (1837).
- a. 2. Borneo. Presented by Hugh Low, Esq.

249. DANAIS CHRYSIPPUS, Linnæus Sp.

- Papilio Chrysippus, Linnæus, Syst. Nat. II. p. 767 (1767). Cramer, Pap. Exot. II. t. 118, f. B. C. Fabricius, Ent. Syst. III. I. p. 50.
- Danais Chrysippus, Godart, Enc. Méth. IX. p. 187. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 51; Diurnal Lep. p. 92, n. 14.
- Euplæa Chrysippus, Hübner, Verz. bek. Schmett. p. 15.
- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
- e.f. &. Darjeeling. From Pearson's Collection.
- g. h. 3 ?. Madras. In exchange from Captain J. M. Jones.

The larva and pupa of *Danais Chrysippus* are figured on Plate IV., fig. 7, 7a, from Java, "where it feeds on *Asclepias gigantea*, the native name of which is *Widuri*,—February and March. Not common."—(Horsfield, MS.)

Genus EUPLŒA, Fabricius.

Eupliea, Fabricius (Illiger's Mag. 1807). Horsfield. Boisduval. Doubleday, Diurnal Lep. p. 86.

Terpsichrois, Crastia, Salpinx, Didonis, Hübner, Verz. bek. Schmett. (1816).

Danaus, p. Latreille.

Danais, p. Godart.

250. EUPLŒA RHADAMANTHUS, Fabricius Sp.

- ¿ Papilio Rhadamanthus, Fabricius, Ent. Syst. III. I. p. 42 (1793). Jones, Icon. t. 45, f. 2.
 - Euplæa Rhadamanthus, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 48; Diurnal Lep. p. 88, n. 23.
- 9 Papilio Diocletianus, Fabricius, Ent. Syst. 111. I. p. 40.
- 9 Danais Diocletianus, Godart, Enc. Méth. IX. p. 181.
- 3 Terpsichrois Thoösa, Hübner, Samml. Exot. Schmett. (1806-27).
- & Danais Alcidice, Godart, Enc. Méth. IX. p. 181 (1819).
- 3 Danais Rhadamia, Godart, Enc. Méth. IX. p. 180 (1819).

- a. 3. Java. From Dr. Horsfield's Collection.
 - b. c. d. N. India. Presented by Lieut. Hugo James.
 - d. d. Cherra Poonjee. Presented by Colonel Buckley.
 - e. 9. Pinang. Presented by Dr. Cantor.
 - f. J. Borneo. Presented by Hugh Low, Esq.

251. EUPLŒA MITRA, Moore.

Euplea Mitra, Moore, Trans. Ent. Soc. 1857, p. t. , f. .

a. d. Habitat and donor not preserved.

Euplæa Mitra, n. sp.—UPPER-SIDE pale chocolate-brown; forewing with a broad oblique transverse white fascia from anterior margin (beyond discoidal cell) to near middle of exterior margin, and there terminated by a separated round white spot; three small white spots near the apex of the wing, and a sub-marginal row of three or four rather indistinct spots: hind-wing with the anterior portion glaucous or silvery-whitish (somewhat as in Euplæa Rhadamanthus). Under-side slightly paler; fore-wing tinged with glaucous posteriorly; fascia as in upper-side, and having a sub-marginal row of ten or twelve white spots, and a longitudinal oval mark of dull brown between the sub-median vein and median veinlet; hindwing with two rows of sub-marginal white spots, and some spots about the disc, two being within discoidal cell. Expanse of wings 23 inches.

252. EUPLŒA ELUSINE, Cramer Sp.

Papilio Elusine, Cramer, Pap. Exot. 111. t. 266, f. D. (1780).

Euplera Elusine, Doubleday, List Lep. Brit. Mus. pt. 1. p. 47; Diurnal Lep. p. 87, n. 9.

Terpsichrois Elusine, Hübner, Verz. bek. Schmett. p. 16 (1816).

Danais Elusine, Godart, Enc. Méth. IX. p. 177 (1819).

a. b. c. d. 3 ♀. Java. From Dr. Horsfield's Collection.

253. EUPLŒA MAZARES, E. Doubleday, MS.

Euplea Mazares, E. Doubleday, Diurnal Lep. p. 87, No. 10 (1847). Moore, Trans. Ent. Soc. 1857, p.,t.,f. Salpinx Elusine, apud Hübner, Samml. Exot. Schmett. (1806-27).

a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.

Euplæa Mazares.—Male: UPPER-SIDE dark brown, paler on hindwings; fore-wing with a brilliant blue gloss; a sub-marginal curved row of bluish-white spots from anterior margin near the apex, the spots lessening in size downwards; also a rather indistinct bluish spot on anterior margin near the middle: hind-wing with a creamywhite patch in anterior half, near the middle, and two small white spots near anterior angle. Under-side paler brown, with a submarginal row of white spots, and also a marginal row of very minute spots: a costal white spot; a larger white spot near the discoidal cell, between the second and third median veinlets; also a creamvwhite patch near posterior margin: hind-wing with a marginal halfrow of minute white spots, commencing from anal angle, also a submarginal row curving from middle of anterior margin; some spots also at the base of the wings. Female as in male, but paler; the blue gloss less vivid, and the creamy-white patches obsolete. Shape of wings as in Euplaa Elusine. Expanse 21 inches.

254. EUPLŒA MELINA, Godart Sp.

Danais Melina, Godart, Enc. Méth. IX. p. 179 (1819).
Euplwa Melina, Boisduval, Faune de l'Océanie, p. 98.
E. Doubleday, Diurnal Lep. p. 88, n. 17.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

255. EUPLŒA HÜBNERI, Boisdaval MS.

Euplwa Hübneri, Moore, Trans. Ent. Soc. 1857, p. t., f.

a. b. c. d. f. Java. From Dr. Horsfield's Collection.

Euplea Hübneri, n. sp.—Male: UPPER-SIDE dark velvety brown, palest exteriorly: fore-wing with a semicircular row of six small white spots, commencing from anterior margin near apex, and curving outwards; also a less distinct white spot near discoidal cell, between first and second median veinlets; an impressed dull-brown longitudinal streak between sub-median vein and median veinlet: hindwing with only a row of three spots near anterior angle. Under-

SIDE pale brown: fore-wing with the semicircular row of spots, and a row outside discoidal cell, and one spot within it, that, and the lowest spot, being the largest: hind-wing with two short rows of spots near anterior angle, the outer row the smallest; and small spots outside and one within, discoidal cell; some spots also at the base of wings. Female: uppen-side paler brown: fore-wing with only three spots near apex, the indistinct spot near discoidal cell, and impressed brown mark: hind-wing without spots. Under-side paler: forewing with spots near apex, as above; also one on middle of costal margin, one within and two outside discoidal cell, one being between each median veinlet; also the longitudinal streak, which is white: hind-wing with sub-marginal row of very small spots, also a row outside, and one spot within, discoidal cell. Wings shaped as in Euplæa Elusine. Expanse 31 inches.

256. EUPLŒA CRAMERI, Boisdaval MS.

Euplea Crameri, Moore, Trans. Ent. Soc. 1857, p. t. , f.

a. d. Borneo. Presented by Hugh Low, Esq.

Euplea Crameri, n. sp.—UPPER-SIDE wholly velvety blackish-brown, having a bluish tint, and slightly paler on exterior margins: fore-wing with a short transverse row of six white spots from anterior margin, close to apex, the two first small, the third large and longest, fourth same size as first, fifth and sixth very small; also a small spot near discoidal cell, between first and second median veinlets: hind-wing with two small white spots near anterior angle. Under-side clear deep brown; fore-wing with white spots, as in upper-side, also with three spots along costal margin, and some on the disc: hind-wing with a sub-marginal row of small white spots, and some on the disc. Expanse of wings 3 inches.

257. EUPLŒA EUNICE, Godart Sp.

Danais Eunice, Godart, Enc. Méth. IX. p. 177 (1819).

Euplæa Eunice, Boisduval, Faune de l'Océanic, p. 94 (1832). Doubleday, List Lep. Brit. Mus. pt. I. p. 47; Diurnal Lep. p. 87, n. 1.

? Limnas mutabilis Nemertes, Hübner, Samml. Exot. Schmett. (1806-27).

Salpinx Nemertes, Hübner, Verz. bek. Schmett. p. 17 (1816).

VOL. I.

- a. d. Pinang. Presented by Dr. Cantor.
- b. d. Java. Presented by the Trustees of the British Museum.

258. EUPLŒA KLUGII, Boisduval MS.

Euplæa Klugii, Moore, Trans. Ent. Soc. 1857, p. t. , f. .

a. b. c. ♂♀. Bootan. From Dr. Pemberton's Collection.

d. J. N. India. Presented by Colonel Sykes.

Euplaa Klugii, n. sp.—Male: UPPER-SIDE deep brown, having on the fore-wings a brilliant blue gloss, a sub-marginal row of small bluish-white spots, and an inner parallel row of larger spots, also a bluish spot on costal margin; one within discoidal cell; two linear bluish marks, one between each discoidal veinlet; and a rather indistinct bluish mark between sub-median vein and median veinlet: hind-wing paler brown, darkest and glossed with blue in the middle; a sub-marginal row of white spots and a short inner row from anterior margin; also a patch of creamy-white near middle of the wing. UNDER-SIDE brown; fore-wing with the two rows of white spots smaller; one spot on costal margin, one small narrow spot between second discoidal and first median veinlets, and a larger spot between second and third median veinlets; a creamy-white patch on posterior base of the wing: hind-wing with two rows of white spots. Female: UPPER-SIDE nearly as in male, the fore-wing with the sub-marginal row of spots obsolete; hind-wing pale brown, darkest and slightly glossed with blue in the middle; two white spots only of inner row distinct, the rest of two rows indistinct; without the creamy-white patch. Under-side nearly as in male, but not having the creamywhite patch. Shape of wings as in Euplaa superba, Herbst. Expanse 35 inches.

259. EUPLŒA PROTHOË, Godart Sp.

Danais Prothoë, Godart, Enc. Méth. IX. p. 177 (1819).

Euplera Prothoë, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 47; Diurnal Lep. p. 87, n. 12.

Papilio Midamus, apud Cramer, Pap. Exot. III. t. 266, f. A. B. (1780).

- Eupleea Pavettæ, Zinken-Sommer, in Nova Acta Acad. Nat. Curios. XV. p. 189 (1831).
- ? Terpsichrois Alea, Hübner, Verz. bek. Schmett. p. 16 (1816).
- a. J. Java. Presented by the Trustees of the British Museum.

The larva and pupa of *Euplæa Prothoë* are figured on Plate IV., fig. 8, 8a, from Ceylon, where discovered by E. L. Layard, Esq., from whose drawings our figures were copied.

260. EUPLŒA SUPERBA, Herbst Sp.

Papilio superba, Herbst, Pap. t. 119, 120 (1783-95).

Euplea superba, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 47; Diurnal Lep. p. 87, n. 14.

Danais Alopia, Godart, Enc. Méth. IX. p. 177 (1819).

Limnas mutabilis Midamis, Hübner, Samml. Exot. Schmett. (1806-27).

- a. d. Darjeeling. From Pearson's Collection.
- b. d. China. Presented by Dr. Cantor.
- $c. \ ?$. China. In exchange.

261. EUPLŒA ALCATHOË, Godart Sp.

Danais Alcathoë, Godart, Enc. Méth. IX. p. 178 (1819).

Euplara Alcathoë, Boisduval, Faune de l'Océanie, p. 99.
 E. Doubleday, Diurnal Lep. p. 87, n. 16.

Euplea Anthrax, Boisduval MS.

- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
- e. J. Silhet. Presented by the Trustees of the British Museum.
- f. 3. Darjeeling. From Messrs. Schlagintweit's Collection.

262. EUPLŒA CORE, Cramer Sp.

Papilio Core, Cramer, Pap. Exot. III. t. 266, f. E. F. (1780).

Euplea Core, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 49; Diurnal Lep. p. 88, n. 31. Crastia Core, Hübner, Verz. bek. Schmett. p. 16 (1816). Papilio Corus, Fabricius, Ent. Sgst. III. I. p. 41 (1793). Danais Coreta, Godart, Enc. Méth. IX. p. 182 (1819).

- a. b. c. d. N. India. Presented by Colonel Buckley.
- d. 9. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

The larva and pupa of *Euplaca Core* are figured on Plate IV., fig. 9, 9a, which were discovered in Canara by S. N. Ward, Esq., and from whose drawings our figures were copied.

263. EUPLŒA DEIONE, Westwood.

Euplea Deione, Westwood, Cab. Orient. Enton. p. 76, t. 37, f. 3 (1847).

 a. d. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

264. EUPLŒA OCHSENHEIMERI, Boisduval MS.

Euplera Ochsenheimeri, Moore, Trans. Ent. Soc. 1857, p. , t. , f. .

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- d. \(\varphi\). Java. Presented by the Trustees of the British Museum.

Euplæa Ochsenheimeri, n. sp.—Male: UPPER-SIDE silky brown, darkest on the hind-wings, and having a golden-greenish metallic lustre in some lights: fore-wing with a sub-marginal row of small white spots (two between each veinlet); two other parallel rows of somewhat larger spots (one between each veinlet in each row); also one spot between first and second branches of subcostal vein, and one within the discoidal cell; narrow ciliæ between indentations spotted with white: hind-wing with two short rows of four very small white spots near anterior angle; narrow ciliæ spotted with white. Underside as above, but the hind-wing having the sub-marginal row of white spots continued along the whole margin; also a row outside discoidal cell; some white spots also at the base of the wings. Female paler, the rows of white spots on upper-side of fore-wing disposed exactly the same, but are larger, those on the hind-wing more straggling, and but few being distinct. Under-side as above, the

fore-wing having also a longitudinal club-shaped streak between submedian vein and median veinlet: hind-wing with three rows of white spots, also one spot within discoidal cell, and some spots disposed at base of the wings. Shape of wings as in Euplæa Midamus. Expanse of wings 3% inches.

265. EUPLŒA MIDAMUS, Linnæus Sp.

Papilio Midamus, Linnæus, Syst. Nat. II. p. 756 (1767). Fabricius, Ent. Syst. III. I. p. 39.

Euplea Midamus, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 47; Diurnal Lep. p. 87, n. 11.

Terpsichrois Midamus, Hübner, Verz. bek. Schnett. p. 16 (1816).

Danais Midamus, Godart, Enc. Méth. IX. p. 179.

Papilio Mulciber, Cramer, Pap. Exot. II. 127, f. C.D. (1776).

Papilio Claudius, Fabricius, Ent. Syst. III. I. p. 40 (1793).

Danais Claudia, Godart, Enc. Méth. IX. p. 180.

? Papilio Basilissa, Cramer, Pap. Exot. III. t. 266, f. C. (1780).

a. b. c. d. ₹ ♀. Java. From Dr. Horsfield's Collection.

e.f. & 9. Darjeeling. From Pearson's Collection.

g. Pinang. Presented by Dr. Cantor.

k. 3. Borneo. Presented by II. Low, Esq.

The larva and pupa of *Euplwa Midamus* are figured on Plate IV., fig. 10, 10a, from Java, where it "feeds on a species of *Ficus*,—December."—(Horsfield, MS.)

Genus IDEOPSIS, Horsfield.

Danais (Sect. IV.), E. Doubleday, Diurnal Lep. p. 93 (1847).

"Closely resembles Hestia in form, texture, and colouring of the wings, and to which it has another resemblance in the absence of the sexual spot on the posterior wings. Like some species of the third section of Danais, and like the genus Hestia, it has the first subcostal veinlet anastomosing with the costal vein. Like most species of Hestia, the genus Ideopsis has the wings somewhat diaphanous, white; the outer margin, veins, veinlets, two or more vittae in the cell,

and a series of dots between the veinlets sometimes coalescing, all fuscous: but, notwithstanding these points of resemblance, it may always be known from *Hestia* at first sight by its distinctly clavate antennæ, and on closer examination, by its claws devoid of paronychia or pulvilli."—(Doubleday.)

266. IDEOPSIS GAURA, Horsfield.

- Idea ? Gaura, Horsfield, Cat. Lep. Mus. E.I.C. t. 6, f. 1 (1829). Boisduval, Spéc. Gén. Lép. t. 11, f. 11.
- Hestia Gaura, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 52.
- Danais Gaura, E. Doubleday, Diurnal Lep. p. 93, n. 38.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

267. IDEOPSIS DAOS, Boisduval Sp.

- Idea Daos, Boisduval, Spéc. Gén. Lép. I. t. 24, f. 3 (1836).
- Hestia Daos, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 52.
- Danais Daos, E. Doubleday, Diurnal Lep. p. 92, n. 39.
- Hestia Eudora, G. R. Gray, in Cat. Lep. Ins. of Nepal, p. 10, t. 9, f. 3 (1846).
- a. d. Pinang. Presented by Dr. Cantor.

The larva and pupa of *Ideopsis Daos* are figured on Plate IV., fig. 11, 11a, for which we re indebted to J. O. Westwood, Esq., and which were discovered by Captain Hamilton on the Tenasserim coast.—(Vide Trans. Ent. Soc. I. n. s. pp. 35, 36.)

Genus HESTIA, Hübner.

- Hestia, Hübner, Verz. bek. Schmett. p. 15 (1816). E. Doubleday, Diurnal Lep. p. 94.
- IDEA, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 283, 1808).
 Latreille. Godart. Boisduval.

268. HESTIA LYNCEUS, Drury Sp.

Papilio Lynceus, Drury, Ins. II. t. 7, f. 1 (1773).

Hestia Lynceus, E. Doubleday, Diurnal Lep. p. 95, n. 1, t. 13, f. 1 (H. Idea, var. on plate).

Idea Lynceus, Godart, Enc. Méth. IX. p. 195. Papilio Idea, Stoll, Suppl. à Cramer, Pap. Exot. V. t. 42, f. 1 (1791).

270. HESTIA JASONIA, Westwood.

Hestia Jasonia, Westwood, Cab. Orient. Ent. p. 87, t. 42, f. 1 (1848).

a. S. Canara (South India). Presented by S. N. Ward, Esq.

271. HESTIA LEUCONOË, Erichson.

Hestia Leuconoë, Erichson, Nova Acta Acad. Nat. Cur. XVI. p. 283 (1834). E. Doubleday, Diurnal Lep. p. 95, n. 4, t. 13, f. 2.

a. b. ?. Borneo. Presented by Hugh Low, Esq.

Genus TELCHINIA, Hübner.

Telchinia, Hübner, Verz. bek. Schmett. p. 27 (1816).

Acrea (Telchinia), E. Doubleday, Diurnal Lep. p. 141 (1848).

272. TELCHINIA VIOLÆ, Fabricius Sp.

Papilio Violæ, Fabricius, Syst. Ent. p. 460 (1775); Ent. Syst. III. I. p. 164 (1793).

Acrora Violæ, Godart, Enc. Méth. IX. p. 231. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 62.

Acrea (Telchinia) Violæ, E. Doubleday, Diurnal Lep. p. 142.

Papilio Cephea, Cramer, Pap. Exot. 111. t. 298, f. D. E. (1782). Telchinia Cephea, Hübner, Verz. bek. Schmett. p. 27.

a. b. c. N. India. From the Asiatic Society of Bengal.

The larva and pupa of *Telchinia Viola* are figured on Plate V., fig. 1, 1a, copied from General Hardwicke's drawings in the British Museum.

Genus PAREBA, E. Doubleday.

ACREA (PAREBA), E. Doubleday, Diurnal Lep. p. 142 (1848).

273. PAREBA VESTA, Fabricius Sp.

Papilio Vesta, Fabricius, Man. Ins. II. p. 14 (1787); Ent. Syst. III. I. p. 163 (1793).

Acrea Vesta, Godart, Enc. Méth. IX. p. 233. E. Doubleday, List Lep. Brit, Mus. pt. I. p. 63.

Acreea (Pareba) Vesta, E. Doubleday, Diurnal Lep. p. 142.

Papilio Terpsichore, *Cramer*, *Pap. Exot.* 111. t. 228, f. A.B.C. (1782).

Telchinia Issoria, Hübner, Verz. bek. Schmett. p. 27 (1816).

- Var. ? Acrova anomala, Kollar, in Hügel's Kaschmir, 1V. pt. 11. p. 425, t. 3, f. 3, 4 (1845).
 - a. b. c. d. d ♀. Java. From Dr. Horsfield's Collection.
 - e.f. &. Darjeeling. From Pearson's Collection.
 - g. J. Bootan. From Pemberton's Collection.
 - h. 9. N. India. From the Asiatic Society of Bengal.
 - \(\begin{align*} \text{.} \) (A. anomala, Kollar). N. India. Presented by Colonel Buckley.

The larva and pupa of *Pareba Vesta* are figured on Plate V., fig. 2, 2a, from Java, "where it feeds on a species of *Urtica*, bearing the native name of *Latungan*,—December."—(Horsfield, MS.)

Genus VANESSA, Fabricius.

Vanessa, Fabricius (Illiger's Mag. VI. 1808). E. Doubleday, Diurnal Lep. p. 198.

EUGONIA; INACHIS, Hübner, Verz. bek. Schmett. (1816).

274. VANESSA ANTIOPA, Linnœus Sp.

Papilio Antiopa, Linnaus, Syst. Nat. II. p. 766 (1767).

- Vanessa Antiopa, Ochsenheimer, Schmett. von Eur. IV. p. 16. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 80; Diurnal Lep. p. 200, n. 10.
- Eugonia Antiopa, Hübner, Verz. bek. Schmett. p. 37.
- $a. \ 9$. Bootan. From Pemberton's Collection.

275. VANESSA XANTHOMELAS, Denis et Schiff. Sp.

- Papilio xanthomelas, Denis et Schiffermüller, Wien. Verz. p. 175 (1776). Hübner, Samml. Europ. Schmett. Pap. f. 85, 86.
- Vanessa xanthomelas, Ochsenheimer, Schmett. von Eur. IV. p. 17. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 81; Diurnal Lep. p. 200, n. 4.
- $a. \ ?$. Darjeeling. Presented by Colonel Buckley.

276. VANESSA CASHMIRENSIS, Kollar.

- Vanessa Cashmirensis, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 442, t. 9, f. 3, 4 (1844). E. Doubleday, Diurnal Lep. p. 200, n. 5.
- Vanessa Flacilla, E. Doubleday. G. R. Gray, Lep. Ins. of Nepal, p. 11 (1846).
- a. b. c. ♂ ♀. Bootan. From Pemberton's Collection.
- d. 3. N. India. Presented by Colonel Buckley.
- e. 9. Ladakh. Presented by Captain Strachey.

277. VANESSA CHARONIA, Drury Sp.

- Papilio Charonia, Drury, Ins. 1. t. 15, f. 1, 2 (1770). Cramer, Pap. Exot. I. t. 47, f. A.B.C. Fabricius, Ent. Syst. 111, 1, p. 119.
- Vanessa Charonia, Godart, Enc. Méth. 1X. p. 308. Kollar, in Hügel's Kaschmir, IV. pt. 11. p. 442. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 80; Diurnal Lep. p. 201, n. 12.
- a. b. c. ♂ ♀. N. India. Presented by Colonel Buckley.
- d. ?. N. India. From Mr. Argent's Collection.

Genus GRAPTA, Kirby.

Grapta, Kirby, Fauna Bor. Amer. p. 292 (1837).

Polygonia, p.; Eugonia, p. Hübner.

VOL. 1. T

278. GRAPTA C. AUREUM, Linnæus Sp.

- Papilio C. aureum, Linnæus, Syst. Nat. II. p. 778 (1767).
- Grapta C. aureum, E. Doubleday, Diurnal Lep. p. 197, n. 1.
- Vanessa C. aureum, Godart, Enc. Méth. IX. p. 304. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 81.
- Papilio Angelica, Cramer, Pap. Exot. IV. t. 388, f. G.H. (1782).
- Eugonia Angelica, Hübner, Verz. bek. Schmett. p. 26.
- a. 3. Pinang. Presented by Dr. Cantor.

Genus PYRAMEIS, Hübner.

Pyrameis, Hübner, Verz. bek. Schmett. 1816. E. Doubleday, Diurnal Lep. p. 202 (1849).

Vanessa, p. Latreille. Godart. Hübner.

CYNTHIA, p. Fabricius.

279. PYRAMEIS CALLIRHOË, Hübner.

- Hamadryas Callirhoë, *Hübner*, Samml. E.cot. Schmett. (1806-16).
- Pyrameis Callirhoë, Hübner, Verz. bek. Schmett. p. 33 (1816). E. Doubleday, Diurnal Lep. p. 204.
- Vanessa Callirhoë, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 78. G. R. Gray, Lep. Ins. of Nepal, p. 11.
- Vanessa Vulcania, Godart, Enc. Méth. 1X. p. 320 (1819). Kollar, in Hüyel's Kaschmir, 1V. pt. 11. p. 442.
- Papilio Atalanta, Cramer, Pap. Exot. I. t. 84, f. E.F.
- u. b. c. ♂ ♀. Darjeeling. From Pearson's Collection.
- d. 9. N. India. Presented by Colonel Hearsey.
- e. d. Ladakh. Presented by Captain Strachey.
- $f. \ \ \ \,$ Pinang. Presented by Dr. Cantor.

280. PYRAMEIS CARDUI, Linnœus Sp.

Papilio Cardui, Linnæus, Syst. Nat. II. p. 774 (1767). Pyrameis Cardui, E. Doubleday, Diurnal Lep. p. 205.

- Vanessa Cardui, Hübner, Verz. bek. Schmett. p. 73. Godart, Enc. Méth. IX. p. 323. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 79.
 - Cynthia Cardui, Stephens, Ill. Haust. I. p. 47.
- Papilio Carduelis, Cramer, Pap. I. t. 26, f. E.F. (1775).
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. J. Madras. From Captain J. M. Jones's Collection, 1856.
- f. d. Darjeeling. From Pearson's Collection.
- g. h. 3 ?. Bootan. From Pemberton's Collection.

The larva and pupa of *Pyrameis Cardui* are figured on Plate V., fig. 3, 3a, from Java, "where it feeds on a species of *Artemisia* the native name of which is *Godomollo*,—December."—(Horsfield, MS.)

Genus JUNONIA, Hübner.

Junonia, Hübner, Verz. bek. Schmett. p. 34 (1816). E. Doubleday, Diurnal Lep. p. 206.

VANESSA, p. Fabricius. Godart. &c.

281. JUNONIA LEMONIAS, Linnœus Sp.

- Papilio Lemonias, *Linnœus*, *Syst. Nat.* 11. p. 770 (1767). *Fabricius*, *Ent. Syst.* 111. 1. p. 90.
- Junonia Lemonias, E. Doubleday, Diurnal Lep. p. 208, n. 1.
- Vanessa Lemonias, Godart, Enc. Méth. IX. p. 310. E. Doubleday, List Lep. Brit. Mus. pt. 1, p. 83.
- Papilio Aonis, Cramer, Pap. Exot. 1. t. 35, f. D. E. F. (1775).
- a. J. N. India, From the Asiatic Society of Bengal.
- b. 3. Assam. From McClelland's Collection.
- c. 9. N. India. Presented by Colonel Buckley.
- d. d. Pinang. Presented by Dr. Cantor.

282. JUNONIA ERIGONE, Cramer Sp.

Papilio Erigone, Cramer, Pap. Exot. 1. t. 62, f. E. F. (1775). Junonia Erigone, E. Doubleday, Diurnal Lep. p. 209, n. 3.

Temenis Erigone, Hübner, Verz. bek. Schmett. p. 31.

Vanessa Erigone, Godart, Enc. Méth. IX. p. 311. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 83.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

283. JUNONIA LAOMEDIA, Linnaus Sp.

Papilio Laomedia, Linnæus, Syst. Nat. II. p. 772 (1767). Drury, Ins. 1. t. 5, f. 3. Cramer, Pap. Exot. I. t. 8, f. F.G. Fabricius, Ent. Syst. 1II. 1. p. 98.

Junonia Laomedia, E. Doubleday, Diurnal Lep. p. 209, n. 4.

Temenis Laomedia, Hübner, Verz. bek. Schmett. p. 34.

Vanessa Laomedia, Godart, Enc. Méth. IX. p. 322. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 83.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

e. &. Dukhun. Presented by Colonel Sykes.

f. 9. Calcutta. Presented by Colonel Buckley.

g. ?. China. Presented by Dr. Cantor.

The larva and pupa of Junonia Laomedia are figured on Plate V., fig. 4, 4a, from Java, "where it feeds on a species of Achyranthes, bearing the native name of Krema,—January and February."—(Horsfield, MS.)

284. JUNONIA ŒNONE, Linnæus Sp.

Papilio (Enone, Linno us, Syst. Nat. 11. p. 770 (1767).
Cramer, Pap. Exot. I. t. 35, f. A.B.C. Fabricius,
Ent. Syst. 111. 1. p. 90.

Junonia (Enone, Hübner, Verz. bek. Schmett. p. 34. E. Doubleday, Diurnal Lep. p. 209, n. 7.

Vanessa (Enoue, Godart, Enc. Méth. IX. p. 318. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 78.

Var. Papilio Hierta, Fabricius, Ent. Syst. V. p. 424 (1798). Vanessa Hierta, Godart, Enc. Méth. IX. p. 318.

a. b. c. 3 ?. N. India. Presented by Colonel Buckley.

d. e. & ?. Dukhun. Presented by Colonel Sykes.

285. JUNONIA ORITHYIA, Linnaus Sp.

- Papilio Orithyia, Linnœus, Syst. Nat. II. p. 770 (1767).
 Fabricius, Ent. Syst. III. I. p. 91. Cramer, Pap. Exot. I. t. 19, f. C.D. ♀; id. t. 32, f. E.F. ♂; id. III. t. 290, f. A.B.♂; t. 281, f. E.F.; t. 290, f. C.D.
- Junonia Orithyia, Hübner, Verz. bek. Schmett. p. 34.
 E. Doubleday, Diurnal Lep. p. 209, n. 8.
- Vanessa Orithyia, Godart, Enc. Méth. 1X. p. 317; id. Enc. Méth. 1X. Suppl. p. 821. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 77.
- ? Junonia Ocyale, Hübner, Verz. bek. Schmett. p. 34 (1816). E. Doubleday, Diurnal Lep. p. 209, n. 9.
- a. b. c. d. e. f. g. h. Java. From Dr. Horsfield's Collection.
- i. ?. Sumatra. From Raffles's Collection.
- j, k, β ?. Pinang. Presented by Dr. Cantor.
- l. m. & \(\cdot \). N. India. Presented by Colonel Buckley.
- $n, \ ?$. Bootan. From Pemberton's Collection.
- o. d. Canara. Presented by S. N. Ward, Esq.

The larva and pupa of *Janonia Orithyia* are figured on Plate V., fig. 5, 5a, from Java, "and feeds on a species of *Vitex*, bearing the native name of *Laban*,—December."—(Horsfield, MS.)

286. JUNONIA VELLIDA, Fabricius Sp.

- Papilio Vellida, Fabricius, Ent. Syst. III. 1. p. 91 (1793). Donovan, Ins. of New Holland, t.
- Junonia Vellida, E. Doubleday, Diurnal Lep. p. 209, n. 14.
- Vanessa Vellida, Godart, Enc. Méth. IX. Suppl. p. 807. Boisduval, Voy. de l'Astrolabe, p. 120. E. Doubleday, List Lep. Brit. Mus. pt. 1, p. 77.
- Vanessa Calybe, Godart, Enc. Méth. IX. p. 316 (1819).
- a. b. & ?. Java. From Dr. Horsfield's Collection.
- c. 3. Sumatra. From Raffles's Collection.

Remark.—These specimens of Vunessa Vellida have been compared at the British Museum with examples from Australia, with which they are perfectly identical.

287. JUNONIA ASTERIE, Linnæus Sp.

- Papilio Asterie, Linnæus, Syst. Nat. II. p. 769 (1767). Cramer, Pap. Exot. I. t. 58, f. D.E. Fabricius, Ent. Syst. III. I. p. 89.
- Junonia Asterie, E. Doubleday, Diurnal Lep. p. 209, n. 15.
- Alcyoneis Asterie, Hübner, Verz. bek. Schmett. p. 35.
- Vanessa Asterie, Godart, Enc. Méth. IX. p. 321. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 76.
- a. b. c. 3 ♀. Java. From Dr. Horsfield's Collection. d. e. 3 ♀. N. India. Presented by Colonel Buckley.

The larva and pupa of Junonia Asterie are figured on Plate V., fig. 6, 6a, from Java, "and feeds on a species of Justicia, bearing the native name of Keji-Wangu,—March."—(Horsfield, MS.)

288. JUNONIA ALMANA, Linnœus Sp.

- Papilio Almana, Linnæus, Syst. Nat. 11. p. 769 (1767). Cramer, Pap. Exot. 1. t. 58, f. F.G. Fabricius, Ent. Syst. 111. 1. p. 89.
- Junonia Almana, E. Doubleday, Diurnal Lep. p. 209, n. 16.
- Alcyoneis Almana, Hübner, Verz. bek. Schmett. p. 35.
- Vanessa Almana, Godart, Enc. Méth. IX. p. 313. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 77.
- a. b. d. N. India. From the Asiatic Society of Bengal.
- $c. \ \ \varphi$. Assam. From Dr. McClelland's Collection.
- d. e. & ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus PRECIS, Hübner.

Precis, Hübner, Verz. bek. Schmett. (1816).

Junonia, Sect. II. (Precis), E. Doubleday, Diurnal Lep. p. 209 (1849).

Salamis, p. Boisduval.

289. PRECIS IDA, Cramer Sp.

Papilio Ida, Cramer, Pap. Exot. I. t. 42, f. C.D. (1775); id. IV. t. 374, f. C.D. Vancssa Idamene, Godart, Enc. Méth. IX. p. 315 (1819). Junonia (Precis) Iphita, ?, apud E. Doubleday, Diurnal Lep. p. 210, n. 32.

? Papilio Zelima, Donovan, Ins. of India (1800-3).

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. d. Pinang. Presented by Dr. Cantor.

290. PRECIS IPHITA, Cramer Sp.

Papilio Iphita, Cramer, Pap. Exot. III. t. 209, f. C.D. (1780). Fabricius, Ent. Syst. III. I. p. 109.

Vanessa Iphita, Godart, Enc. Meth. 1X. p. 314.

Salamis Iphita, Boisduval. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 85.

Junonia (Precis) Iphita. E. Doubleday, Diurnal Lep. p. 210, n. 32.

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e.f. 3. Darjeeling. From Pearson's Collection.
- y. h. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

291. PRECIS HARA, Moore (Plate IIIa., fig. 1).

Precis Hara, n. sp.—UPPER-SIDE golden-brown, darker on outer margins: fore and hind-wings each having three narrow transverse black bands on the anterior half of the wings, the outer band on hind-wing being zig-zagged, with a parallel row of small black spots between the outer and middle band; within each discoidal cell are two narrow and rather square-shaped spaces, those on the hind-wing being the narrowest. Under-side dull brown, marked as above, with deep brown, but the two inner bands broad, the outer very narrow; on the hind-wing, above the marks, within discoidal cell, is a narrow brown mark; the outer margins are also deep brown.

- a. 3. Silhet. Presented by the Trustees of the British Museum.
- b. c. d. d. N. India. Presented by Lieut. Hugo James.
- e. 9. N. India. Presented by Colonel Buckley.

292. PRECIS POLYNICE, Cramer Sp.

Papilio Polynice, Cramer, Pap. Exot. II. t. 195, f. D. E. (1780). Fabricius, Ent. Syst. III. I. p. 89.

Junonia (Precis) Polynice, E. Doubleday, Diurnal Lep. p. 210, n. 35.

Vanessa Polynice, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 80.

Vanessa Polynissa, Godart, Enc. Meth. IX. p. 308 (1819).

Genus ERGOLIS, Boisduval.

Engolis, Boisduval, Spéc. Gén. Lép. 1. p. 2, t. 4, f. 4 (1836).

Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 409 (1851).

Ariadne, Horsfield, Cat. Lep. Mus. E.I.C. t. 6, f. 2 (1829).

ELYMNIAS, p. Hübner.

Biblis, p. Godart.

293. ERGOLIS ARIADNE, Linnaus Sp.

Papilio Ariadne, Linnaus, Syst. Nat. II. p. 778 (1767). Fabricius, Syst. Ent. p. 507.

Ergolis Ariadne, Boisdural. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 145. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 410, n. 1.

Elymmias Ariadne, Hübner, Verz. bek. Schmett. p. 328.

Biblis Ariadne, Godart, Enc. Meth. 1X. p. 327.

Papilio Merione, Cramer, Pap. Exot. 11. t. 144, f. G.H. (1779).

a. b. ${\ensuremath{\mathcal{S}}}$ ${\ensuremath{\mathfrak{p}}}$. N. India. Presented by Colonel Sykes.

c. d. og. Darjeeling. From Pearson's Collection.

294. ERGOLIS CORYTA, Cramer Sp.

Papilio Coryta, Cramer, Pap. Exot. I. t. 86, f. E.F. (1779).

Ergolis Coryta, Boisduval, Spéc. Gén. Lép. I. p. 2, t. 4, f. 4. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 145. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 410, n. 2.

- Ariadne Coryta, Horsfield, Cat. Lep. Mus. E.I.C. t. 6, f. 2.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. 3 \circ . N. India. From the Asiatic Society of Bengal.
- g. J. Assam. From McClelland's Collection.
- h. 3. Madras.

The larva and pupa of *Ergolis Coryta* are figured on Plate VI., fig. 6, 6a, from Java, and "feeds on the *Jarak* (*Ricinus communis*),—December. Not very common."—(Horsfield, MS.)

The transformations of a species of this genus were also discovered in Ceylon by E. L. Layard, Esq., and are figured among his original drawings.

Genus CYNTHIA, Fabricius.

CYNTHIA, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 281, 1808). Anartia, p. Hübner.

Paphia, p. Horsfield.

295. CYNTHIA ARSINOE, Cramer Sp.

- 3 Papilio Arsinoë, Cramer, Pap. Exot. II. t. 160, f. A.B. (1777). Fabricius, Ent. Syst. 111, 1, p. 74.
 - Cynthia Arsinoë, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 281, 1808). E. Doubleday, Diurnal Lep. p. 213, t. 24, f. 5.
 - Vanessa Arsinoë, Godart, Enc. Méth. 1X. p. 297. Boisduval, Voy. de l'Astrolabe, Ins. p. 123.
 - Anartia Arsinoë, Hübner, Exot. Samml. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 84.
- Papilio Juliana, Cramer, Pap. Exot. III. t. 280, f. A.B. (1782). Fabricius, Ent. Syst. III. I. p. 108.
- Que Cynthia Deione, Erichson, Nova Acta Acad. Nat. Cur.

 XVI. II. t. 40, f. 2, 2a (1833).
- a. b. 3 ?. Java. From Dr. Horsfield's Collection.
- c. J. Darjeeling. From Pearson's Collection.
- d. e. β ?. Darjecling. Presented by Colonel Buckley.

Genus AMNOSIA, Boisduval.

Amnosia, Boisduval. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 259 (1850).

296. AMNOSIA DECORA, Boisduval.

Amnosia decora, Boisduval, MS. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 88. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 260, t. 51, f. 4, 3.

a. J. Java. From Mr. Argent's Collection.

b. ?. Java. From T. Tatum, Esq.

Genus CYRESTIS, Boisduval.

Cyrestis, Boisduval, Voy. de l'Astrolabe, p. 117 (1832).

297. CYRESTIS LUTEA, Zinken-Sommer Sp.

Amathusia lutea, &, et A. nivea, \(\rightharpoonup, Zinken-Sommer, in Nova Acta Acad. Nat. Cur. XVI. p. . t. 14, f. 1, 2 (1831).

Marpesia Hylas, Hübner, Samml. Exot. Schmett. Band 111. f. , ♂ ♀, nec. Clerck.

Nymphalis Hylas, Godart, Enc. Méth. IX. p. 361.

Cyrestis Hylas, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 88.

Cyrestis Recaranus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 261, n. 3 (1850).

a. b. ♂ ♀. Java. From Dr. Horsfield's Collection.
c. d. e. Java. From T. Tatum, Esq.

298. CYRESTIS THYODAMAS, Boisdural.

Cyrestis Thyodamas, Boisduval, in Cuv. Règ. An. edit. Crochard, Ins. t. 138, f. 4 (). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 88. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 261, n. 4, t. 32, f. 3.

Amathusia Ganescha, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 430, t. 7, f. 3, 4 (1844).

a. b. ♂ ♀. Darjecting. From Pearson's Collection. c. d. ♂. N. India. Presented by Colonel Buckley.

299. CYRESTIS PERIANDER, Fabricius Sp.

Papilio Periander, Fabricius, Ent. Syst. 111. 1. p. 67 (1793). Donovan, Ins. of India, t. 37, f. 1.

Cyrestis Periander, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 261, n. 8.

Nymphalis Periander, Godart, Enc. Méth. 1X. p. 362.

Paphia Periander, Horsfield, Descr. Cat. Lep. Mus. E.I.C. t. 5, f. 3, 3a.

a. b. Java. From Dr. Horsfield's Collection.

300. CYRESTIS RISA, E. Doubleday.

Cyrestis Risa, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 262, n. 10, t. 32, f. 4.

- a. b. Assam. From Griffith's Collection.
- c. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

301. CYRESTIS RAHRIA, Westwood (Plate IIIa, fig. 2).

Cyrestis Rahria, Westwood, MS. in Doubleday and Hewitson's Diurnal Lep. p. 262, n. 11 (1850).

? Cyrestis Neduna, De Haan, MS.

a. b. c. d. e. 3 ?. Java. From Dr. Horsfield's Collection.

Genus PARTHENOS, Hübner.

Parthenos, Hübner, Verz. bek. Schmett. p. 38 (1816).

MINETRA, Boisduval, Voy. de l'Astrolabe, p. 126 (1832). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 265.

302. PARTHENOS SYLVIA, Cramer Sp.

Papilio Sylvia, Cramer, Pap. Exot. I. t. 43, f. F. G. (1779).

Parthenos Sylvia, Hübner, Verz. bek. Schmett. p. 38.

Nymphalis Sylvia, Godart, Enc. Méth. IX. p. 381.

Phyllophasis Sylvia, Blanchard, in Lap. Hist. Nat. An. Art. III. p. 448.

Minetra Sylvia, Boisduval, Voy. de l'Astrolabe, p. 127.

- E. Doubleday, List Lep. Brit. Mus. pt. I. p. 86. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 266.
- a. b. c. d. ♂♀. Java. From Dr. Horsfield's Collection.
- e. Pinang. Presented by Dr. Cantor.

303. PARTHENOS GAMBRISIUS, Fabricius Sp.

- Papilio Gambrisius, Fabricius, Ent. Syst. III. I. p. 85 (1793). Donovan, Ins. of China, t. 38.
- Minetra Gambrisius, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 86. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 266, t. 51, f. 2.
- a. N. India. Presented by Colonel Sykes.
- b. Silhet. Presented by Colonel Buckley.
- c. Pinang. Presented by Dr. Cantor.

Captain Mortimer J. Slater, in his MS. Notes, p. 244, remarks:—"1 met with this insect (*Pap. Gambrisius*) at Dacea, in the deepest jungle. Its flight is rapid and dodgy, and in consequence is very difficult to capture on the wing."

Genus PROTHOE, Hübner.

PROTHOE, Hübner, Samml. Exot. Schmett. (1806-27). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 267.

AUTONEMA, Boisduval, MSS.

304. PROTHOË FRANCKI, Godart Sp.

Nymphalis Franck, Godart, Enc. Méth. IX. p. 825 (1819).

Prothoë Franckii, Hübner, Samml. Exot. Schmett. Band II. t. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 88. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 287, t. 51, f. 3.

Paphia Franck, Horsfield, Cat. Lep. Mus. E.I.C. t. 5, f. 4, 4a.

Autonema Franckii, Boisduval, MSS.

a. b. c. d. Java. From Dr. Horsfield's Collection.

Genus TERINOS, Boisdural.

Terinos, Boisduval, Spéc. Gén. Lép. I. t. 9, f. 4 (1836). E. Doubleday, Diurnal Lep. p. 159.

305. TERINOS CLARISSA, Boisduval.

Terinos Clarissa, Boisduval, Spéc. Gén. Lép. I. t. 9, f. 4 (1836). E. Doubleday, Diurnal Lep. p. 160, t. 21, f. 3.

- $a. \ 9$. Java. From Mr. Argent's Collection.
- Borneo. Presented by Edwin Shepherd, Esq., 1857.

Genus CIRROCHROA, E. Doubleday.

CIRROCHROA, E. Doubleday, Diurnal Lep. p. 157 (1848).

306. CIRROCHROA THAIS, Fabricius Sp.

Papilio Thais, Fabricius, Ent. Syst. III. I. p. 149 (1793).

Cirrochroa Thais, E. Doubleday, Diurnal Lep. p. 158, n. 2.

Argynnis Thais, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 66.

Argynnis Thea, Godart, Enc. Meth. 1X. p. 260 (1819).

a. b. c. d. & Q. Java. From Dr. Horsfield's Collection.

307. CIRROCHROA AORIS, E. Doubleday.

- 3 Cirrochroa Aoris, E. Doubleday, MS. Westwood and Hewitson's Diurnal Lep. p. 158, t. 21, f. 1 (1847).
- a. b. c. 3. Darjeeling. From Pearson's Collection.
- e. f. y. ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

308. CIRROCHROA CLAGIA, Godart Sp.

Argynnis Clagia, Godart, Enc. Méth. IX. Suppl. p. 816 (1823). Boisduval, Spéc. Gén. Lép. I. t. 10, f. 6. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 66.

- Cirrochroa Clagia, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 158, n. 3.
- a. b. c. d. e. ♂♀. Java. From Dr. Horsfield's Collection.

309. CIRROCHROA BAJADETA, Moore (Plate IIIa, fig. 3).

Cirrochroa Bajadeta, n. sp.—Male: UPPER-SIDE ferruginous, with a broadish blackish border from the anterior angle along the exterior margin of both wings, and having narrow blackish lunular marks disposed along the inner margin of the border, also three black spots on each posterior wing from the anal angle. UNDER-SIDE paler, with a tapering fascia crossing both wings, this being white on the posterior wing; also two ranges of lunular markings along the exterior margin, and six spots disposed across the posterior wing, near the white fascia.

The female differs above, in being of a brighter colour, and in having the border blacker, the anterior wings having a narrow blackish disco-cellular mark; the lunular marks of the posterior wings being darker and more suffused, and having six spots disposed from anal to anterior angle. Beneath, the colours and markings are stronger.

a. b. 3 ?. Java. From Dr. Horsfield's Collection.

310. CIRROCHROA RAVANA, Moore.

Cirrochroa Ravana, n. sp.—Female: Upper-side, with base of both wings, to irregular transverse black line from middle of costal margin to a little above the anal angle, dull ferruginous, the rest being paler and brighter, and almost yellow on the fore-wing; exterior margin of fore-wing broadly from the apex to posterior angle, and narrowly along exterior margin of hind-wing black, the former with an indistinct pale spot on the apex, the latter with marginal and sub-marginal lunulated line and some spots across the disc black. Under-side much paler, faintly glossed with pearly-white; a tapering pearly-white band from middle of costal margin to near anal angle, a marginal and a sub-marginal lunulated line, and a row of black spots encircled with ferruginous across disc of hindwing; markings within discoidal cell ferruginous; two small white spots at the apex of fore-wing.

a. \(\mathbb{Q} \). Borneo. Presented by Edwin Shepherd, Esq., 1857.

Genus MESSARAS, E. Doubleday.

Messaras, E. Doubleday, MS. Westwood and Hewitson's Diurnal Lep. p. 163 (1848).

311. MESSARAS ERYMANTHIS, Drury Sp.

Papilio Erymanthis, Drury, Ins. I. t. 15, f. 3, 4 (1770).

- Cramer, Pap. Exot. III. t. 238, f. F.G. Fabricius, Ent. Syst. III. I. p. 139.
- Messaras Erymanthis, E. Doubleday, MS. Westwood and Hewitson's Diurnal Lep. p. 164.
- Argynnis Erymanthis, Godart, Enc. Méth. IX. p. 257.

 Boisduval, Voy. de l'Astrolabe, Ins. p. 115. E.

 Doubleday, List Lep. Brit. Mus. pt. I. p. 67.
- a. b. c. d. Java. From Dr. Horsfield's Collection.
- e. ?. N. India. Presented by Colonel Sykes.
- f. d. Canara. Presented by S. N. Ward, Esq.
- $g. \ ?$. Pinang. Presented by Dr. Cantor.
- h. Borneo. Presented by Edwin Shepherd, Esq., 1857.

"Tolerably plentiful at Dacea, 1844. Flies quietly, and is easily captured. I used to find one or two almost invariably near a deep pool of stagnant water overhung with bamboo jungle, where Athyma Leucothoë was always to be found, together with two of the species resembling it in flight and general colour."—(Captain Mortimer J. Slater's MS. Notes, p. 148.)

312. MESSARAS ALCIPPE, Cramer Sp.

- Papilio Alcippe, Cramer, Pap. E.cot. IV. t. 389, f. G. H. (1782).
- Messaras Aleippe, E. Doubleday, MS. Westwood and Hewitson's Diurnal Lep. p. 165.
- Argynnis Alciope, Godart, Enc. Méth. IX. p. 259. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 67.
- a. \(\varphi \). Silhet. Presented by the Trustees of the British Museum.
- b. 3. ? Borneo. Presented by Edwin Shepherd, Esq., 1857.

Genus ATELLA, E. Doubleday.

- ATELLA, E. Doubleday, Diurnal Lep. p. 165 (1848).
- PHALANTA, Horsfield, Desc. Cat. Lep. Mus. E.I.C. t. 7, f. 5 (1829).

313. ATELLA PHALANTA, Drury Sp.

Papilio Phalanta, Drury, Ins. 1. t. 21, f. 1, 2 (1770). Fabricius, Ent. Syst. III. 1. p. 149.

- Atella Phalanta, E. Doubleday, MS. Westwood and Hewitson's Diurnal Lep. p. 167.
- Argynnis Phalanta, Godart, Enc. Méth. IX. p. 259. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 67.
- Papilio Columbina, Cramer, Pap. Exot. III. t. 238, f. A.B. (1780); t. 337, f. D.E. var.
- Argyronome Columbina, Hübner, Verz. bek. Schmett. p. 32.
- Phalanta Columbina, Horsfield, Desc. Cat. Lep. Mus. E.I.C. t. 7, f. 5.
- u. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. g. 3 9. N. India. From the Asiatic Society of Bengal.
- $h. \circ .$ N. India. Presented by Colonel Buckley.

The larva and pupa of Atella Phalanta are figured on Plate V., fig. 7, 7a, from Java, and "feeds on a species of Ixora,—November. Scarce."—(Horsfield, MS.)

314. ATELLA EGISTA, Cramer Sp.

- Papilio Egista, Cramer, Pap. Exot. 111. t. 281, f. C.D. (1780).
- Atella Egista, E. Doubleday, MS. Westwood and Hewitson's Diurnal Lep. p. 167, n. 6.
 - 1ssoria Egista, Hübner, Verz. bek. Schmett. p. 31.
 - Argynnis Egista, Godart, Enc. Méth. IX. p. 261. Boisduval, Voy. de l'Astrolabe, Ins. p. 113. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 66.
 - Terinos Sinha, Kollar, in Hügel's Kaschmir, IV. pt. 11. p. 438 (1844).
- a. b. $3 \circ$. Java. Presented by Dr. Horsfield.
- c. d. e. 3 \circ . N. India. Presented by Colonel Buckley.

Genus LAOGONA, Boisduval.

LAOGONA, Boisduval, Spéc. Gén. Lép. I. t. 10, f. 3 (1836).

Symbrenthia, Hübner, Verz. bek. Schmett. (1816).

llypanartia, Hübner-Geyer, Samml. Exot. Schmett. (1841).

315. LAOGONA HYPPOCLA, Cramer Sp.

- Papilio Hyppocla, Cramer, Pap. Exot. III. t. 220, f. C.D. (1780).
- Laogona Hyppocla, Boisduval. E. Doubleday, List Lcp. Brit. Mus. pt. I. p. 83. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 191, n. 1.
- Hypanartia Hyppocla, Hübner and Geyer, Samml. Exot. Schmett. III. (1841).
- Vanessa Hyppocla, Godart, Enc. Méth. IX. p. 298.
- § Papilio Lucina, Cramer, Pap. Exot. IV. t. 330, f. E.F.
 (1782).
- a. b. c. d. e. f. ♂ ♀ . Java. From Dr. Horsfield's Collection.
- g. Darjeeling. From Pearson's Collection.
- h. Bootan. From Pemberton's Collection.
- i. j. N. India. Presented by Colonel Buckley.

316. LAOGONA HYPSELIS, Godart Sp.

- Vanessa Hypselis, Godart, Enc. Méth. 1X. Suppl. p. 818 (1823).
- Laogona Hypselis, Boisduval, Spéc. Gén. Lép. 1. t. 10, f. 3. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 83. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 191, n. 2, t. 25, f. 1.
- a. b. c. J. N. India. Presented by Colonel Buckley.
 d. Var. From T. Tatum, Esq.

Genus CETHOSIA, Fubricius.

Cethobia, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 280, 1807.)

Godart. Latreille. Doubleday.

X

ALAZONIA, Hübner, Verz. bek. Schmett. p. 46 (1816).

317. CETHOSIA BIBLIS, Drury Sp.

- Papilio Biblis, Drury, Ins. 1. t. 4, f. 2 (1780). Cramer, Pap. Exot. II. t. 175, f. A.B.
- Cethosia Biblis, Westwood, in Drury's Ins. 2nd edit. I. p. 9. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 65; Qiurnal Lep. p. 151, n. 1.

VOL. I.

Alazonia Symbiblis (part), Hübner, Verz. bek. Schmett. p. 46 (1816).

Cethosia Biblina, Godart, Enc. Méth. IX. p. 248. Papilio Penthesilea, apud Fabricius, Spec. Ins. II. p. 88.

- a. b. J. N. India. Presented by Licut. Hugo James.
- c. d. $\ensuremath{\mathcal{G}}$ \cong . Darjeeling. From Pearson's Collection.
- e.f. d. Darjeeling. From Messrs. Schlagintweit's Collection.

318. CETHOSIA PENTHESILEA, Cramer Sp.

Papilio Penthesilea, Cramer, Pap. Exot. II. t. 145, f. B.C. (1776).

Cethosia Penthesilea, Godart, Enc. Méth. IX. p. 248. Lucas, Lep. Exot. t. 55, f. 1. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 65; Diurnal Lep. p. 151, n. 2.

a. b. c. d. e. 3 9. Java. From Dr. Horsfield's Collection.

319. CETHOSIA ÆOLE, De Haan MS.

Cethosia Hole, Do Haan .- UPPER-SIDE: male, fore-wing having the posterior basal third to near posterior angle rufous, the rest black, also some transverse markings in discoidal cell: the basal half of the wing with a bluish-purple tinge, being most vivid at the unison of the two colours; also a white transverse patch near middle of wing: hind-wing with a broad black exterior border, the rest rufous, with bluish-purple tinge; three small black spots disposed linearly from near anal angle; also an indistinct spot between discoidal and median veinlets; wings deeply scalloped, and with white zigzag marginal markings. Female, with the upper-side of the fore-wing nearly all black, excepting a narrow yellow space along the middle of posterior margin: hind-wing with a broader marginal border than in male, the abdominal margin yellowish, the rest rufous; discal spot larger, and tooth-shaped; white patch also larger. Underside of both sexes nearly as in Ceth. Penthesilea, but the white central irregular fascia of the hind-wing is very broad in Ceth. Æole.

- a. b. o ?. Sumatra. From Dr. Horsfield's Collection.
- c. d. Borneo. Presented by Edwin Shepherd, Esq., 1857.

320. CETHOSIA CYANE, Fabricius Sp.

- Papilio Cyane, Fabricius, Syst. Ent. p. 503 (1775); Ent.
 Syst. III. I. p. 115. Drury, Ins. 1. t. 4, f., 1.
 Cramer, Pap. Exot. 1V. t. 295, f. C.D.
- Cethosia Cyane, Godart, Enc. Meth. IX. p. 247. Kollar, in Hügel's Kaschmir, IV. pt. 11. p. 443. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 65; Diurnal Lep. p. 152, n. 6.
- Alazonia Symbiblis (part), Hübner, Verz. bek. Schmett. p. 46.
- a. b. ♂ ♀. Canara. Presented by S. N. Ward, Esq. d. e. f. g. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

The larva and pupa of *Cethosia Cyane* are figured on Plate V. fig. 8, 8a, from Canara, Southern India, and were copied from the original drawings made by S. N. Ward, Esq.

Captain Mortimer J. Slater also observed the transformations of "a species of *Cethosia*, from a larva feeding on the Passion-flower. The larva was yellow, black, and crimson in alternate bars, and covered with stinging spines. Pupa hung by tail and band, and in leaf-like appendages resembled that of *Papilio Pammon.*"—(MS. Notes, p. 302.)

Genus ARGYNNIS, Fabricius.

Abgynnis, Fabricius. (Illiger's Mag. VI. 1808.) Ochschheimer, Schmett. von Eur. IV. p. 16 (1816). Doubleday.

ARGYNNIS, BRENTHIS, ISSORIA, ACIDALIA, ARGYRONOME, Hübner, Verz. bek. Schmett. (1816).

321. ARGYNNIS NIPHE, Linnæus Sp.

- Papilio Niphe, Linnæus, Syst. Nat. 11. p. 785 (1767). Cramer, Pap. Exot. I. t. 14, f. B.C.D.E. Fabricius, Ent. Syst. 111. I. p. 142.
 - Argynnis Niphe, Godart, Enc. Méth. IX. pp. 261, 806. Kollar, in Hügel's Kaschmir, IV. pt. II. p. 440, t. 13, f. 12. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 67; Diurnal Lep. p. 174, n. 1.
 - Acidalia Niphe, Hübner, Verz. bek. Schmett. p. 31.
- Papilio Hyperbius, Linnaus, Aman. Acad. VI. p. 408.

- 3 Papilio Argyrius, Sparmann, Amæn. Acad. VII. p. 502 (1768).
- d Papilio Argynnis, Drury, Ins. I. t. 6, f. 2 (1770). Argynnis Tephnia, Godart, Enc. Méth. IX. p. 262 (1819).
 - a. b. c. d. 3 2. Java. From Dr. Horsfield's Collection.
 - e. ?. Pinang. Presented by Dr. Cantor.
 - f. 9. Darjeeling. From Pearson's Collection.
 - g. h. i. ♂♀. N. India. Presented by Colonel Buckley.

322. ARGYNNIS ARUNA, Moore (Plate IIIa, fig. 4).

A. Aruna, n. sp.—UPPER-SIDE, wings fulvous; anterior wings with a broad black patch in discoidal cell and between the nervules, and duller markings on the exterior margin: posterior wings having the whole space between the nervules posteriorly occupied with black, and leaving only small lunular markings on the exterior margin, the latter becoming bluish at the anal angle. UNDER-SIDE with the anterior wings broadly suffused with black; posterior wings with the basal half silvery, and with black markings across the wing from outer to anal angle. Shape of wings as in Arg. Niphe; expanse 3½ in.

a. J. N. India. Presented by Colonel Buckley.

323. ARGYNNIS ISSÆA, G. R. Gray.

Argynnis Isawa, G. R. Gray, Lep. Ins. of Nepal, p. 11 (1846). E. Doubleday, Diurnal Lep. p. 174, n. 3.

Argynnis Lathonia, apud Kollar, in Hügel's Kaschmir, IV. pt. II. p. 440.

a. b. ♂ ♀. Bootan. From Pemberton's Collection.

c. d. d. N. India. Presented by Colonel Hearsey.

324. ARGYNNIS KAMALA, Moore.

Argynnis Kamala, n. sp.—UPPER-SIDE golden-yellow; fore-wings somewhat dusky at the base; hind-wings tinged in parts with yellow-ish-green: fore-wing with all the veins and veinlets deeply defined with black; the black markings disposed exactly as in Argyn. Paphia, but larger and duller, and in A. Kamala the submarginal row of spots are less defined and continuous, rather forming a stripe than a linear series of spots; the marginal row is connected between the

veinlets by a narrow line: hind-wing with an irregular zigzag inner black band, then a row of five round black spots, and a submarginal row of seven linear-shaped spots (the anterior and third being smallest), also a marginal black line; the angles and end of veinlets also black. Under-side, fore-wing yellow, the markings within discoidal cell and about the disc as above, but submarginal row paler; none on margin; near the apex a green patch, containing three silvery-white spots: hind-wing beautiful metallic green, with a broad submarginal and inner band, and a series of marks about the basal half silvery-white, all margined more or less on one side with black; between the submarginal and inner band some small spaces of yellow, and an indistinct row of reddish spots. Wings shaped as in Argyn. Paphia; expanse 2% in.

a. b. c. J. N. India. Presented by Colonel Buckley.

325. ARGYNNIS RUDRA, Moore.

Argynnis Rudra, n. sp.—UPPER-SIDE bright fulvous, duller and slightly tinged with green at the base: fore-wing with the markings disposed as in Arg. Childreni, but somewhat smaller, but with a marginal row of small spots: hind-wing with the spots also disposed as in Arg. Childreni, but with a marginal row of spots. UNDER-SIDE, fore-wing fulvous-yellow, greenish at the apex; the spot on the exterior half indistinct: hind-wing light green, palest on abdominal margin; a ferruginous irregular band crossing the basal half; an irregular more or less white line crossing from anterior margin near the angle to abdominal angle; also some white disposed from anal angle and inclosing the green colour, and thus forming a submarginal row; along the outside of the white line, some ferruginous spots, centred with white. Wings shaped as in Arg. Laodice, which appears to be a near ally; expanse of wings 3 in.

a. d. N. India. Donor unknown.

326. ARGYNNIS CHILDRENI, G. R. Gray.

Argynnis Childreni, G. R. Gray, Gray's Zool. Misc. p. 33 (1832); Lep. Ins. of Nepal, p. 11, t. 11. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 68; Diurnal Lep. p. 174, n. 6.

Argynnis Sakontala, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 439, t. XII. (1844).

a. b. C. N. India. Presented by Colonel Buckley.

Genus DIADEMA, Boisduval.

- DIADEMA, Boisduval, Voy. de l'Astrolabe, Ins. p. 135 (1832). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 279.
- Hypolimnas, Esoptria, et Panopea, p. Hübner, Verz. bek. Schmett. (1816).

APATURA (part), Fabricius. Horsfield.

NYMPHALIS (part), Godart.

- 327. DIADEMA BOLINA, Linnœus Sp.
 - Papilio Bolina, Linnæus, Syst. Nat. II. p. 781 (1767).
 Clerck, Icon. t. 21. Drury, Ins. I. t. 14, f. 1, 2.
 Cramer, Pap. Exot. I. t. 65, f. E.F. Fabricius, Ent.
 Syst. III. pt. I. p. 126. Herbst, Pap. t. 244, f. 3, 4.
 - Diadema Bolina, Boisduval, Faune Ent. de Madag. p. 39. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 98. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 280, n. 1.
 - Nymphalis Bolina, Godart, Enc. Méth. IX. p. 396.
 - Apatura Bolina, Zinken-Sommer, Nova Acta Acad. Nat. Cur. XV. p. 194.
 - Papilio Misippus, Linnæus, Syst. Nat. II. p. 767.
 Danaïs Misippus, Godart, Enc. Méth. IX. p. 394.
 - S Papilio Diocippus, Cramer, Pap. Exot. I. t. 28, f. B.C. (1779). Herbst, Pap. t. 155, f. 3, 4. Fabricius, Ent. Syst. III. pt. I. p. 51.
 - Var. Q Papilio Inaria, Cramer, Pap. Exot. III. t. 214, f. A.B. Herbst, Pap. t. 157, f. 5, 6.
 - a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
 - e. f. g. h. ♂♀. N. India. Presented by Colonel Buckley.
 - i. (Hermaphrodite). Canara. Presented by S. N. Ward, Esq.
 - j. J. Borneo. Presented by H. Low, Esq.
 - k. Q var. (P. Inaria, Cram.) Madras. From Captain J. M. Jones's Collection.
- 328. DIADEMA AUGE, Cramer Sp.
 - d Papilio Auge, Cramer, Pap. Exot. II. t. 190, f. A.B. (1779).

- Diadema Auge, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 98.
- Z Papilio Lasinassa, Cramer, Pap. Exot. III. t. 205, f. A.B.
 (1782). Fabricius, Ent. Syst. III. pt. 1. p. 127.
 Lucas, Hist. Nat. Lep. Exot. t. 70, f. 2.
 - Nymphalis Lasinassa, Godart, Enc. Meth. 1X. p. 395.
 - Apatura Lasinassa, Horsfield, Cat. Lep. Mus. E.I.C. t. S.
- Var. ♂ Papilio Iphigenia, *Cramer*, *Pap. Exot.* 1. *t.* 67, *f. D.E.* (1779).
 - ¿ Papilio Aleithoë, Cramer, Pap. Exot. I. t. 80, f. A.B. (1779). Hübner, Samml. Exot. Schmett. Bd. 1. t.—.
- Var.

 Papilio Perimele, Cramer, Pap. I. t. 65, f. C.D.; id. t. 67, f. B. (1779).
- Var. 9 Papilio Melita, Cramer, Pap. I. t. 28, f. D.E. (1779).
- Var.

 Papilio Alemene, Cramer, Pap. 1. t. 67, f. A. (1779).
- Var. ? Papilio Antigone, Cramer, Pap. I. t. 67, f. C. (1779).
- Var. 9 Papilio Proserpina, Cramer, Pap. III. t. 218, f. C.D. (1782).
- Var.

 Papilio Manilia, Cramer, Pap. Exot. t. 255, f. A. B.

 (1782).
- Var. 9 Papilio Porphyria, Cramer, Pap. t. 255, f. E.F.
- Var. 9 Papilio Velleda, Cramer, Pap. t. 349, f. C.D. (1782).
- Var. ♀ Papilio Eriphile, Cramer, Pap. t. 376, f. A.B. (1782).
 - S Papilio Liria, Fabricius, Ent. Syst. III. pt. I. p. 126.
 Nymphalis Liria, Godart, Enc. Méth. IX. p. 395.
 - Papilio Nerina, Fabricius, Ent. Syst. 111. pt. I. p. 133. Donovan, Ins. of New Holl. t. 27, f. 1.
- Var. ? Papilio Jacintha, Fabricius, Ent. Syst. III. pt. I. p. 60.

 Jones, Icon. IV. t. 51. Donovan, Ins. of China,
 t. 37, f. 1. Drury, Ill. App. vol. II. t. 21, f. 1, 2.
 - 9 Papilio Avia, Fabricius, Ent. Syst. III. pt. I. p. 111.
 - a. b. c. d. e. f. g. h. ♂ ♀. Java. From Dr. Horsfield's Collection.
 - $i.j. \ 3 \ ?$. N. India. Presented by Colonel Sykes.
 - k. l. m. n. o. 3 ?. N. India. Presented by Colonel Buckley.
 - p. 3. Borneo. Presented by H. Low, Esq.

The larva and pupa of *Diadema Auge* are figured on Plate V. fig. 9, 9a, taken from the original drawing made by E. L. Layard, Esq., in Ceylon.

329. DIADEMA ANTILOPE, Cramer.

Papilio Antilope, Cramer, Pap. Exot. II. t. 183, f. E.F. Diadema Antilope, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 281, n. 6.

Nymphalis Antilope, Godart, Enc. Méth. IX. p. 397.

a. J. Java. Presented by the Trustees of the British Museum.

Genus PENTHEMA, E. Doubleday.

PENTHEMA, E. Doubleday, MS.; Diurnal Lep. t. 39 (1847).

DIADEMA (PENTHEMA), Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 281 (1850).

330. PENTHEMA LISARDA, E. Doubleday.

Diadema Lisarda, E. Doubleday, Ann. Nat. Hist. XVI. p. 233 (1845).

Penthema Lisarda, E. Doubleday, Diurnal Lep. t. 39, f. 3.

Diadema (Penthema) Lisarda, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 281, n. 9.

Nymphalis Euphrone, Westwood, Cabinet Orient. Entomol. p. 55, t. 27, f. 1 (1847).

- a. b. ♂ ♀. Darjeeling. From Pearson's Collection.
- c. d. ♂ ♀. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.
- e. f. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus HESTINA, Westwood.

Diadema (Hestina), Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 281 (1850).

331. HESTINA ASSIMILIS, Linnœus Sp.

Papilio assimilis, Linnæus, Syst. Nat. II. p. 782 (1767). Cramer, Pap. Exot. II. t. 154, f. A. Esper, Pap. Exot. t. 57, f. 1. Fabricius, Ent. Syst. 111. pt. I. p. 39. Clerck, Icon. t. 16, f. 1, 2. Drury, Ill. 1. t. 17, f. 3, 4.

Diadema (Hestina) assimilis, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 281, n. 18.

Hestia assimilis, Hübner, Verz. bek. Schmett. p. 15.

Nymphalis assimilis, Godart, Enc. Méth. 1X. p. 393.

Diadema assimilis, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 97.

- a. b. d. N. India. Donor unknown.
- c. 9. N. India. Presented by the Trustees of the British Museum.

332. HESTINA CONSIMILIS, Westwood.

- § Diadema (Hestina) consimilis, Westwood, in Doubleday
 and Hewitson's Diurnal Lep. p. 281, n. 20 (1850).
- a. b. \(\psi \) (type). N. India. Presented by Colonel Buckley.

333. HESTINA ISA, Moore.

Hestina Isa, n. sp.—Female: UPPER-SIDE, fore-wing dusky-brown, darker and somewhat bluish on apical half; a broad oblique short white patch from middle of costal margin, intersected by three of the veinlets; a whitish mark in middle of discoidal cell, and some narrow longitudinal white marks at the apex; also an indistinct marginal row of small whitish spots: hind-wing dusky-brown, with the middle of the wing to abdominal margin white, intersected by the veins; also a marginal and submarginal row of small bluish-white spots from anal angle. Under-side paler brown, and marked as above. Wings shaped as in Hest. consimilis; expanse 3½ inches.

a. Q. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

334. HESTINA PERSIMILIS, Westwood.

Diadema (Hestina) persimilis, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 281, n. 19 (1850).

- a. d (type). N. India. Presented by Colonel Buckley.
- b. c. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

VOL. 1. Y

335. HESTINA NAMA, Boisdwal Sp.

Diadema Nama, Boisduval, MS. E. Doubleday, Ann. Nat. Hist. XVI. p. 232 (1845); id. Diurnal Lep. t. 39, f. 2; List Lep. Brit. Mus. pt. I. p. 97.

Diadema (Hestina) Nama, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 281, n. 21.

- a. b. c. d. ♂ ♀. N. India. Presented by Lieutenant Hugo James.
- e. f. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus Nov. CALINAGA, Moore.

Head small, with a somewhat long frontal tuft.

Thorax large, hairy; neck covered with long velvety hairs.

Abdomen long, slender.

Labial palpi porrected, ascending, elevated to the level of the middle of the eyes, slender, covered with fine hairs, those in front very long; apical joint ovate-cylindric.

Antennæ (broken off).

Fore-legs short, pectoral; femur clothed with fine long hairs; tibia and tarsus hairy; tarsus two-thirds the length of tibia, armed with a single claw.

Hind-legs rather stout; femur clothed with hairs; tibia the same length as the femur, and partially covered with short spiny hairs, with two short tibial spurs; tarsus with several rows of shorter spines; of five joints, the first as long as the other four together; second, third, and fourth short; fifth rather long, half the length of the first; claws sharp.

Fore-wings elongate-trigonate: anterior margin slightly arched, apical angle rounded; exterior margin about half the length of the anterior; posterior margin slightly convex, two-thirds the length of anterior. Costal vein strong, and extending to two-thirds of the anterior margin: subcostal vein separated from the costal, its first branch arising at two-fifths from the base; second branch at a little distance off, and at equal distance from the first as from the extremity of discoidal cell, and both running parallel with the costal: third and fourth branches arising at equal distances from each other and from the extremity of the discoidal cell and the tip of the wing. Upper disco-cellular vein very short, almost obsolete,

arising from the subcostal at about the middle of the wing: middle disco-cellular vein four times the length of first, extending downward, and slightly convex; lower disco-cellular vein long, curving obliquely downward and outward, and uniting with the third branch of the median vein at its origin, closing the discoidal cell.

Hind-wings elongate-trigonate: anterior margin convex at its base, then quite straight; outer margin rounded; abdominal margin nearly straight, slightly rounded: precostal vein rather indistinct, curved inward. Costal vein arched near the base, then straight, extending to costal margin on three-fourths of the wing: subcostal vein straight to two-fifths of the wing, where it branches slightly upward, and extends to the apex. Upper disco-cellular vein short, straight, arising at the subcostal branch; middle disco-cellular vein slightly oblique, concave; lower disco-cellular vein oblique, convex, uniting with the third branch of median vein a little beyond its origin, closing the discoidal cell.

336. CALINAGA BUDDHA, Moore (Plate IIIa, f. 5).

Calinaga Buddha, n. sp.—Utper-side smoky-brown: fore-wing with a submarginal row of rounded creamy-white spots; also a parallel row of irregular-shaped longitudinal whitish streaks from costal margin, widening to posterior margin; space within discoidal cell whitish, divided transversely in the middle by a blackish bar: hind-wing with a submarginal row of white oval spots; another row from anterior margin narrowing towards anal angle; interior of discoidal cell and abdominal margin broadly whitish, the latter tinged at the anal angle with ochreous; thorax ferruginous; abdomen black. Under-side: fore-wings as in the upper-side, but the markings less defined; hind-wings dull ochreous, paler at the base and on abdominal margin; whitish markings rather indistinct; sides of thorax ferruginous. Expanse of wings 3½ inches.

a. J. N. India. Presented by Colonel Buckley.

Genus NEPTIS, Fabricius.

NETTIS, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 282, 1808.) Horsfield. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 270.

ACCA, p. Hübner, Verz. bek. Schmett. (1816).

LIMENITIS, p. Boisduval, Ind. Méth. Eur. Lép. p. 16 (1840). E. Doubleday, List Lep. Brit. Mus.

337. NEPTIS HORDONIA, Stoll Sp.

Papilio Hordonia, Stoll, Suppl. Cramer Pap. Exot. t. 33, f. 4, 4D (1791).

Neptis Hordonia, Westwood, in Doubledag and Hewitson's Diurnal Lep. p. 271, n. 3.

Nymphalis Hordonia, Godart, Enc. Méth. IX. p. 429.

Limenitis Hordonia, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 93.

a. b. 3 ?. Java. From Dr. Horsfield's Collection.

c. d. 3 9. N. India. Presented by Colonel Sykes.

e. f. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—Neptis Hordonia may be known by the mottled markings of the under-side.

338. NEPTIS HELIODORE, Fabricius Sp.

Papilio Heliodore, Fabricius, Ent. Syst. III. pt. I. p. 130 (1793). Jones, Icon. IV. t. 76, f. 2, nec. Cramer.

Neptis Heliodore, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 271, n. 4.

Nymphalis Heliodore, Godart, Enc. Méth. IX. p. 429.

Limenitis Heliodore, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 93.

a. b. & g. Java. From Dr. Horsfield's Collection.

Remark.—Neptis Heliodore may be distinguished from the preceding by the well-defined markings of the under-side.

339. NEPTIS MIAH, Moore (Plate IVa, fig. 1).

Neptis Miah, n. sp.—UPPER-SIDE brown-black: fore-wing with a longitudinal streak from base of wing, an oblique transverse short apical fascia, and which nearly meets a reversely-oblique fascia on posterior margin, rufous: hind-wing with a nearly straight broad inner band, and a narrow submarginal band, rufous. Under-side dark ferruginous: fore-wing with the longitudinal and oblique marks pinky-white; two narrow submarginal lines purple: hind-wing with inner band pinky-white; two submarginal and a less distinct middle

line purple; costal margin at the base whitish. Expanse of wings 25 inches.

a. b. \(\varphi\). Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—Allied to the two preceding species, but may easily be distinguished by the colour and markings of the under-side.

340. NEPTIS VIKASI, Horsfield.

- Neptis Vikasi, *Horsfield*, Cat. Lep. Mus. E. I. C. t. 5, f. 2, 2a (1829).
- Athyma Vikasi, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 274, n. 10.
- Limenitis Vikasi, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 94.
- a. b. c. d. Java (type). From Dr. Horsfield's Collection.
- e.f. N. India. Presented by Colonel Buckley.
- y. h. Darjeeling. Reserved from Indian Collection, Exposition Universelle at Paris, 1855.

341. NEPTIS MANASA, Moore (Plate IVa, fig. 2).

Neptis Manasa, n. sp.—UPPER-SIDE dull dusky-brown: markings white, tinged with very pale ferruginous: fore-wing with the discoidal streak long, and continued in a curve to near the posterior angle; an apical oblique streak; two small spots on costal margin, and one below the margin; a spot on middle of posterior margin; a marginal row of small indistinct spots: hind-wing with broad inner and narrower outer band, both extending across the abdominal margin; an indistinct marginal line and line between the two bands; narrow cilia white. Under-side pale ochreous, with indistinctly-defined white markings; the discoidal streak is continued uninterrupted to the middle of posterior margin, the space within being blackish; on the hind-wing are some small white markings between the inner band and costal vein. Expanse 2½ inches.

a. d. N. India. Presented by Colonel Buckley.

Remark.—Neptis Manasa may be distinguished above by the discoidal streak being nearly confluent with the spot on the middle of posterior margin, it being quite confluent on the under-side.

342. NEPTIS ANANTA, Moore (Plate IVa, fig. 3).

Neptis Ananta, n. sp.—UPPER-SIDE brownish-black; markings ferruginous: fore-wing with discoidal streak straight; a curved twice-interrupted band from anterior margin near apex to middle of posterior margin; a pale marginal line: hind-wing with rather broad inner and narrow outer band, both extending across the abdominal margin; also a pale marginal line and line between the bands. UNDER-SIDE very deep ferruginous: fore-wing with discoidal streak, spots near apex, and from posterior margin, ferruginous-white; posterior margin broadly patched with black; a marginal and submarginal bluish-ashy line: hind-wing with inner band white, outer band grey and indistinct; a marginal line and zigzag line between the two bands bluish-ashy. Expanse $2\frac{1}{2}$ inches.

a. 9. N. India. Presented by Colonel Buckley.

Remark.—Neptis Ananta may be known from N. Manasa by its ferruginous markings and straight discoidal streak.

343. NEPTIS RADHA, Moore (Plate IVa, fig. 4).

Neptis Radha, n. sp.—UPPER-SIDE brownish-black: markings ferruginous: fore-wing with a long discoidal streak, narrow at base, and extending to a short distance between the third and second median veinlets; two small spots on costal margin, and two larger oblique spots near the apex; a large spot on disc, and an elongate spot to middle of posterior margin; marginal line pale: hind-wing with rather broad inner and narrower outer band, both extending across the abdominal margin; a marginal line and line between the two bands pale brown. UNDER-SIDE ferruginous-brown; markings as above, but indistinct, owing to the surface being mottled over with ashy-blue. Expanse 2% inches.

- a. ?. Bootan. From Pemberton's Collection.
- b. d. Darjeeling. From Messrs. Schlagintweit's Collection.

344. NEPTIS COLUMELLA, Cramer Sp.

Papilio Columella, Cramer, Pap. Exot. IV. t. 296, f. A.B. (1782).

Neptis Columella, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 272, n. 7.

Limenitis Columella, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 95.

Acca Columena, Hübner, Verz. bek. Schmett. p. 44.

- a. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- b. c. 9. N. India. Presented by Colonel Sykes.

Inhabits also China, Ceylon; and specimens from the island of Lombok which I have examined, are also identical.

345. NEPTIS JUMBAH, Moore (Plate IVa, fig. 5).

Neptis Jumbah, n. sp. -- UPPER-SIDE smoky-black: fore-wing with a narrow longitudinal discoidal streak, and a parallel triangular spot, white; a transverse curved row of interrupted white spots from apical third of costal margin to near middle of posterior margin, composed of two very narrow longitudinal spots on the costal margin, beneath which are two large spots, then a very small streak, then two large spots, and lastly two narrower spots terminating on posterior margin; between this band of spots and exterior margin are two rows of more or less-defined lunular-shaped white spots, these being bounded exteriorly by a shade of deep black: hind-wing with a broad white band from costal to abdominal margin, being intersected by the veins; near outer margin a row of ill-defined white lunated marks, bounded exteriorly by deep black, then a submarginal row of black lines; between the white band and row of white lunated marks is a broad band of black. Under-side ferruginous: fore-wing with markings as above, but the four rows of markings along exterior margin white, and suffused at the apex and near the middle with ferruginous: hind-wing with the broad white band; abdominal margin, base of costal margin, and broadly across parallel with the band, suffused with white; a marginal and two submarginal rows of whitish marks, between which and the broad band a series of fine dark ferruginous spots from abdominal margin, and terminating in white marks on costal margin. Body above, black; beneath, white. Sexes alike. Expanse 22 to 21 inches.

- $a. b. \delta.$ N. India. Presented by Colonel Sykes.
- $c. \ \$ \circ . N. India. Presented by Colonel Buckley.
- d. 9. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- e. Ceylon. Donor unknown.

346. NEPTIS NATA, Moore (Plate IVa, fig. 6).

Neptis Nata, n. sp.—UPPER-SIDE deep black; markings very white: fore-wing with the discoidal streak long, in two portions; curved series of spots small: hind-wing with the bands narrow. UNDER-SIDE dusky-brown; inner band of hind-wing not extending to anterior margin; a marginal line only between outer band and exterior margin, the submarginal line being obsolete. Sexes alike. Expanse 2; inches.

 d. Borneo. Presented by Edwin Shepherd, Esq., 1857.

347. NEPTIS NANDINA, Moore (Plate IVa, fig. 7).

Neptis Nandina, n. sp.—Upper-side black; markings white: forc-wing with discoidal streak in two portions; the curved row of seven spots broadly interrupted; and submarginal row of small less-defined spots: hind-wing with inner band, and narrow outer row of less-defined square spots; indistinct marginal line and line between the bands, brown. Under-side deep chocolate-brown, with markings as above, but more defined and of a brighter colour; those of the hind-wing gently curved. Sexes alike. Expanse 24 to 25 inches.

a. d. Java. From Dr. Horsfield's Collection.

b. c. d. ♂ ♀.. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—This species may be known from Neptis Aceris by the deep chocolate-colour of the under-side, by the anterior margin of hind-wing being evenly arched to beyond the middle; all the markings of this wing being nicely curved.

348. NEPTIS ACERIS, Esper Sp.

Papilio Aceris, Esper, Ausl. Schmett. t. 81, cont. 31,
 f. 3, 4, t. 82, f. 1 (1785). Fabricius, Mant. Ins. II.
 p. 52; Ent. Syst. III. pt. I. p. 245.

Neptis Aceris, Horsfield, Cat. Lep. Mus. E.I.C. t. 7, f. 9. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 271, n. 5.

Nymphalis Aceris, Godart, Enc. Méth. IX. p. 430.

Acca Aceris, Hübner, Verz. bek. Schmett. p. 44.

Limenitis Aceris, Boisdural, Icon. Hist. t. 18, f. 2; id.

- Ind. Méth. p. 16. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 95. Kollar, in Hügel's Kaschmir, IV. pt. II. p. 428.
- Papilio Plautilla, Hübner, Europ. Schmett. Pap. f. 99, 100 (1805).
- Acca Matuta, Hübner, Verz. bek. Schmett. p. 44 (1816).
- Neptis Matuta, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 272, n. 6.
- Papilio Leucothoë, Cramer, Pap. Exot. IV. t. 296, f. E.F. (nec. Linn.)
- Papilio Leucothoë, apud Donovan, Ins. of China, 1st edit. t. 35, f. 3.
- Limenitis Eurynome, Westwood, in 2nd edit. Donovan's Ins. of China, p. 66, t. 35, f. 4 ().
- Athyma Eurynome, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 274, n. 2.
- a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.
- y. h. i. j. ♂ ♀. Europe. From M. Becker's Collection.
- k. d. N. W. India. Presented by Colonel Hearsey.
- l. m. 3 ?. Canara. Presented by S. N. Ward, Esq.
- n. o. d. Darjeeling. From Pearson's Collection.
- p. q. r. s. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- t. u. Borneo. Presented by H. Low, Esq.
- v. w. 3 ?. China. From the Asiatic Society of Bengal.
- x. 3. Pinang. Presented by Dr. Cantor.

The larva and pupa of *Neptis Aceris* are figured on Plate V., fig. 10, 10a, from Java, where it "feeds on a species of *Hedysarum*, bearing the native name of *Kajangan*. May. Rather scarce."—(Horsfield, MS. Notes.)

Genus ATHYMA, Westwood.

ATHYMA, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 272 (1850).

VOL. I.

BIBLIS, p. Fabricius, Syst. Gloss. Horsfield, Desc. Cat. Lep. Mus. E.I.C. t. 8, f. 3 (1829).

ACCA, p. Hübner, Verz. bek. Schmett.

LIMENITIS, p. E. Doubleday, List Lep. Brit. Mus.

349. ATHYMA LEUCOTHOE, Linnæus Sp.

Papilio Leucothoë, Linnæus, Mus. Lud. Ulr. 292; Syst. Nat. ed. 12, II. p. 780. Fabricius, Ent. Syst. III. I. p. 129. Sulzer, Hist. Ins. t. 18, f. 2, 3.

Athyma Leucothoë, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 273.

Limenitis Leucothoë, Westwood, in Donovan's Ins. of China (2nd edit.). Kollar, in Hügel's Kaschmir, IV. pt. II. p. 428. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 94.

Acca Leucothoë, Hübner, Verz. bek. Schmett. p. 44.

Nymphalis Leucothoë, Godart, Enc. Méth. IX. p. 430.

Biblis Leucothoë, Horsfield, Cat. Lep. Mus. E.I.C. t. 8, f. 3.

Papilio Erosine, Cramer, Pap. Exot. III. t. 203, f. E.F. Najas hilaris Erosine, Hübner, Samml. Exot. Schmett. Band I. tab.

Papilio Polyzena, Donovan, Ins. of China, t. 35, f. 4 (1st edit.).

e. 3. Assam. From McClelland's Collection.

f. \circ . Darjeeling From Indian Collection, Exposition Universelle at Paris, 1855.

g. J. N. India. Presented by Colonel Buckley.

The larva and pupa of Athyma Leucothoë are figured on Plate V., fig. 11, 11a, from Java, where it "feeds on a species of Phyllanthus, bearing the native name of Dempul-lolot. April."—(Horsfield, MS. Notes.)

Remark.—The specimens of Athyma Leucothoë from Java are smaller than those from India, and have the central band broader and the portions closer together. Sexes alike.

Captain Mortimer J. Slater remarks, in his MS. Notes, p. 152: "This insect and its allies hover and flit in the air, especially in little open places, as where two paths meet, and over pools of water, &c."

850. ATHYMA ASURA, Moore (Plate V., fig. 1).

Athyma Asura, n. sp. - UPPER-BIDE Bmoky-brown; markings creamy-white: fore-wing with a narrow discoidal streak, which is terminated at a short distance by an angular mark; a band of spots curving outward from anterior to middle of posterior margin, the first spot commencing as a very narrow line, second and third long and oval, fourth the smallest, fifth somewhat larger and rounded, sixth larger still and oval, seventh the largest, square, indented at the side, eighth narrow and on posterior margin; a submarginal row of well-defined lunular marks, terminated on the apex of the wing by an inner row of three small spots: hind-wing with a broad inner band; also a less broad band from abdominal to anterior angle, this being intersected by the veinlets, and having a single black spot in the middle between each veinlet; a marginal pale-brown line in both wings; a narrow bluish-white collar and band across the base of the abdomen. Under-side bright ferruginous; markings as above, but the fore-wing has the submarginal row of marks broad, and having a black spot in the middle of each; also a marginal row of small spots; some black lines bordering the discoidal marks; also a small black circle near base of wing, and a patch of black on posterior margin near the angle: hind-wing with the inner, and spotted outer band the same as above; a bluish-green curved line across the base of wing, and a marginal row of lunular spots; body and upper part of abdominal margin bluish-green. Expanse 3 inches. Sexes alike.

a. 9. N. India. Presented by Colonel Buckley.

Remark.—This species may be distinguished from all others by the outer band on the hind-wings having a central spot between each vein. Specimens of both sexes of Ath. Asura are in the Collection of W. W. Saunders, Esq.

351. ATHYMA OPALINA, Kollar Sp. (Plate V., fig. 2).

Limenitis Opalina, Kollar, in Hügel's Kaschmir, 1V. pt. 11. p. 427 (1844).

- Athyma Opalina, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 274, n. 5.
- a. d. N. India. From the Asiatic Society of Bengal.
- b. 3. N. India. Presented by Colonel Buckley.
- c. d. N. India. Presented by Colonel Hearsey.

- d. e. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- f. g. Q. N. India. Presented by Edwin Shepherd, Esq., 1857.

Athyma Opalina may be distinguished by the discoidal streak being divided into four portions, as in Ath. Leucothoë, and by the deep ferruginous colour of the under-side being suffused in parts with grey and greyish-brown. Expanse $2\frac{\pi}{k}$ to $2\frac{\pi}{k}$ inches. Sexes alike.

352. ATHYMA LARYMNA, E. Doubleday Sp.

Limenitis Larymna, E. Doubleday MS.

Athyma Larymna, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 274, n. 7, t. 35, f. 1 (1850).

a. ¿. Borneo. Presented by Edwin Shepherd, Esq., 1857.

353. ATHYMA JINA, Moore (Plate V., fig. 3).

Athyma Jina, n. sp.—Male: UPPER-SIDE smoky-brown; markings creamy-white: fore-wing with the discoidal streak entire, long, broad, and thickening to the extremity; a series of seven spots from subcostal vein curving outward to middle of posterior margin, the first being small, second larger, broader, third narrow, fourth small, fifth larger, oval, sixth the largest, somewhat square and indented at the side, seventh narrow, clongated, triangular; a submarginal row of rather indistinct spots, those on the apex broadest: hind-wing with inner band somewhat narrow; outer band composed of broad lunulated spots; band across base of abdomen whitish. UNDER-SIDE brilliant ferruginous, posterior margin of fore-wing blackish; markings the same as above, but the fore-wing with an additional spot on costal margin to the curved row; extreme posterior margin blackish. bounded inwardly by a submarginal row of white lines: hind-wing with the inner band extending across abdominal margin; space between base of wing and costal vein white; extreme exterior margin blackish, bounded inwardly by a marginal row of narrow lunular marks; body white. Expanse 3 inches.

a. 3. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

vrk.—Athyma Jina may at once be distinguished by the discoidal streak being entire.

354. ATHYMA PRAVARA, Moore (Plate V., fig. 4).

Athyma Pravara, n. sp.—UPPER-SIDE smoky-brown; markings creamy-white: fore-wing with an entire club-shaped streak; a transverse row of spots curving outward from costal vein towards the apex to middle of posterior margin, the first and second spots being rather large and square, the third much smaller, the fourth a mere dot, the fifth the largest, and oval, the sixth large and indented at the sides, the last narrow; a row of submarginal linear-shaped spots, more or less distinct: hind-wing with a broad inner band, and a narrow band of spots curving outwardly from anal angle to anterior angle; a submarginal line and abdominal margin light brown; body with a narrow bluish-white band across the thorax, and another across the base of the abdomen. Under-side paler brown, with markings as above, but with dark-brown patches between the markings; body and abdominal margin greyish. Sexes alike. Expanse 2; inches.

- a. 3. Borneo. Presented by Edwin Shepherd, Esq., 1857.
- b. 9. Java. From Dr. Horsfield's Collection.

355. ATHYMA NEFTE, Cramer Sp.

9 Papilio Nefte, Cramer, Pap. Exot. 111. t. 256, f. E. F.
(1782).

Athyma Nefte, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 274, n. 11.

Pantoporia Nefte, Hübner, Verz. bek. Schmett. p. 44.

Nymphalis Nefte, Godart, Enc. Méth. 1X. p. 429.

Limenitis Nefte, Boisdaval, Spéc. Gén. Lép. t. 8 (4B), f. 6. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 93.

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. g. 3?. Bornco. Presented by Edwin Shepherd, Esq., 1857.

Remark.—The male of Athyma Nefte has all the markings of the upper-side white, these in the female being orange-coloured.

356. ATHYMA INARA, E. Doubleday, Sp.

Z Limenitis Inara, E. Doubleday MS.

- Athyma Inara, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 274, t. 34, f. 3 (1850).
- a. b. c. 3 9. N. India. Presented by Colonel Buckley.
- d. \circ . N. India. Presented by Colonel Sykes.
- e. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—The female of Athyma Inara has all the markings on the upper-side orange-colour.

357. ATHYMA CAMA, Moore (Plate V., fig. 5, 3 ?).

Athyma Cama, n. sp.-Male: UPPER-SIDE velvety-black; fore-wing with brown marginal and submarginal line; discoidal streak indistinct ferruginous, and dusted over with black; near the apex a ferruginous spot; two oblique spots from subcostal vein on one-third of the wing from the apex, and a band of three spots from middle of wing to posterior margin, joining a band across hind-wing, white, bordered with blue; on the hind-wing also a marginal and submarginal brown line; body black, with a broad white band across base of abdomen. UNDER-SIDE pale ferruginous; markings purplish-white; the curved band as above: fore-wing with a long broad irregular discoidal streak, submarginal and indistinct marginal line; a black patch near the base of wing and posterior angle: hind-wing with a curved line near base of wing, and a rather broad outer band; a marginal row of marks; some patches of brown between outer and inner band; body and abdominal margin broadly grey. Female: UPPER-SIDE black; markings ferruginous: fore-wing with a long discoidal streak; an oblique band from anter or to near middle of exterior margin, and nearly joining a band running to middle of posterior margin; a marginal and submarginal brown line, the latter ferruginous anteriorly and posteriorly: hind-wing with a broad inner and narrower outer band; also a marginal brown line; body black, with a white band across base of abdomen, and bound below with ferruginous; also a pale-white collar. Under-side ferruginous; markings as in male. but pinky-white, except marginal and submarginal lines, which are purplish-white. Expanse of wings in male $2\frac{1}{3}$ to $2\frac{7}{8}$ inches; female, 3 inches.

- a. b. d. Darjeeling. From Pearson's Collection.
- c. J. Darjeeling. Presented by Colonel Buckley.
- d. e. f. & ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—The male of Athyma Cama may at once be known from that sex of Athyma Selenophora in having on the upper-side a forruginous spot close to the apex, and the band on the fore-wing being composed of three spots.

358. ATHYMA SELENOPHORA, Kollar Sp.

Limenitis Selenophora, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 426, t. 7, f. 1, 2 (1844). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 8.

- a. d. N. India. Presented by Colonel Buckley.
- b. c. d. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- e. f. 3 var. (with discoidal streak in two portions).

 Darjeeling.

Athyma Selenophora.—The male may be distinguished from Athy. Cama on the upper-side by having the oblique sub-apical spots narrow, and the band on the fore-wing being composed of four spots; in the under-side being of a darker ferruginous colour, and the streak along discoidal cell being divided into four portions, and in having darker black blotches; also in having on the hind-wing four short black lines disposed between the inner band and discoidal vein. Expanse of male $2\frac{\alpha}{3}$ inches. Female unknown, but would have the markings above ferruginous.

359. ATHYMA RANGA, Moore (Plate V., fig. 6).

Athyma Ranga, n. sp.—UPPER-SIDE smoky-black: fore-wing with a curved interrupted white band from anterior margin, one-third from the apex, to middle of posterior margin, being composed of eight spots, the first on anterior margin, very narrow, second, third, and fourth elongate-conical, the fourth being the shortest, fifth triangular and broadly divided from the fourth, sixth broad, largest, and nearly square, seventh narrower and broadly divided from the sixth, eighth long and narrow; a marginal and submarginal row of rather indistinct whitish spots; base of wing covered with indistinct white spots: hind-wing with broad inner band, intersected by the veins; an outer or submarginal row of broad conic-shaped indistinct white spots; a marginal row of very indistinct spots; also indistinct spots at the base of wing; abdominal margin whitish; body dark brown, abdomen with two rows of small white spots. Under-side with the markings

the same, and very distinct; body and abdominal margin greenishwhite. Expanse 2³ inches. Sexes alike.

a. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Specimens of both sexes are in the Collection of W. W. Saunders, Esq.

360. ATHYMA MAHESA, Moore (Plate V., fig. 7).

Athyma Mahesa, n. sp.—UPPER-SIDE smoky-black, fore-wings with a green gloss in some lights: fore-wing with three oblique white ovate spots from subcostal vein, one-third from the apex; two white spots in middle of the wing, the upper one very small, and two white spots on middle of posterior margin, the upper oval, the lower narrow; two indistinct white spots in discoidal cell, and some indistinct greenish spots at the base of the wing; a marginal and submarginal row of light-brown spots: hind-wing with an inner white band, divided by the veins, and an outer or submarginal row of indistinct brownish-white conic-shaped spots; also a very indistinct marginal row of small light-brown spots; body brown, abdomen with two rows of white spots. UNDER-SIDE paler, tinged with ferruginous about the disc; markings the same, but all very distinct, and more or less white; the spots within discoidal cell and base of fore-wing divided by black marks; base of costal margin yellowish-white: hind-wing with space between precostal and costal vein yellowish-white; a curved oval black mark, whitish within, between the costal vein and inner band; a row of black patches between inner and outer band: body, and broadly on abdominal margin, yellowish-grey. Expanse 27 inches.

a. 3. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—Athyma Mahesa may be known from the preceding by its larger size and much narrower band.

Genus Nov. ABROTA, Moore.

Head of moderate size, tufted in front.

Eyes prominent, naked.

Antennæ long, filiform at the base, gradually thickening to a slender cylindric club.

Labial palpi elevated above the level of the eyes, hairy, those at the base, side, and in front, long.

Thorax robust, clothed with long hairs.

Abdomen of moderate size.

Fore-wings elongate-trigonate; anterior margin boldly curved; apical angle slightly rounded; outer margin somewhat straight in the male, concave in the female, slightly waved, two-thirds the length of the anterior; posterior margin slightly concave, rather longer than the outer; costal vein thick at the base, extending to beyond the middle of the costa; subcostal vein with the first branch arising about one-fourth the length of the wing, second a little beyond it, and before the extremity of the discoidal cell, third branch arising at two-thirds the length of the wing, and extending in a slight curve to the tip, fourth branch straight, arising half-way between it and the apex, which it reaches just below the tip; the terminal portion of the vein deflexed; upper disco-cellular vein very short, outwardly oblique, arising at one-third from the base of the wing; middle disco-cellular vein curved outward; lower disco-cellular vein long, curved outward, and uniting with the third branch of the median vein at a little distance beyond its origin, closing the cell at a little more than one-third the length of the wing.

Hind-wings somewhat rounded; anterior margin arched at the base, from thence nearly straight to the apex, where it curves slightly downward; exterior margin rather longer than the anterior, rounded and waved; precostal vein curved outward; costal vein curved, extending to the apex; subcostal vein branching near its base; upper disco-cellular vein arising at a short distance from the base of the subcostal branch; lower disco-cellular vein obsolete, so that the cell is open.

Fore-legs of the male slender; femur scaly in front, beneath clothed with fine long silky hairs; tibia as long as the femur, clothed with downy hairs; tarsus two-thirds the length of tibia, conical, covered with uniform hairs.

Fore-legs of the female scaly; femur with a few silky hairs beneath; tarsus rather longer than the male, truncated at the tip, where it is finely spined beneath.

Four hind-legs moderately long, of equal length; tibia shorter than the femur; femur thickly scaled; tibia thickly clothed with short scaly hairs, with two rows of short thick spines; tarsus as long as the tibia, thickly clothed at the sides and beneath with rows of short spines; claws sharp, and much curved.

VOL. 1. 2 A

361. ABROTA GANGA, Moore (Plate VIa, fig. 1, ♂♀).

Abrota Ganga, n. sp.-Male: UPPER-SIDE ferruginous: fore-wing along upper part of discoidal cell, a spot, and disco-cellular mark within it, a broad oblique streak, tapering from middle of costal vein to middle of lower discoidal veinlet, then extending in a zigzag manner to posterior margin near the base, the space between the latter and median vein only smeared, exterior and apical margin, submarginal line, and smeary patches near the apex and lower part of disc, black: hind-wing with marginal, submarginal, third and fourth inner bands, black; ciliæ with small white spots. UNDER-SIDE dull-yellow, with duller exterior margins; a distinct dark narrow streak from near apex of fore-wing to near abdominal margin; two indistinct zigzag lines across disc, and markings about the base of both wings dull-ferruginous; from apex of fore-wing some white spots. Female black-brown: fore-wing with streak from base along lower part of discoidal cell to middle of wing, with a dentate mark on disco-cellular vein; two outward oblique spots from near apex; a broad band from middle of disc, inward oblique, to posterior margin, and indistinct submarginal series of small spots, pale ferruginous; also two small outward oblique white spots at the apex: hind-wing with broad inner and narrower outer slightly-curved bands, pale ferruginous; ciliæ with small white spots. UNDER-SIDE pale chocolatebrown, with patch on costal margin near the apex, space about the disc of fore-wing and across middle of hind-wing, yellowish; an illdefined streak from near apex of fore-wing to middle of abdominal margin; zigzag lines across disc, and patches about base of both wings, whitish; some spots at apex of fore-wing white. Expanse of male 3, female 35 inches.

a. b. c. d. e. f. 3 9. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus LIMENITIS, Fabricius.

LIMENITIS, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 281, 1807). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 274.

NYMPHALIS, Boisduval, Ind. Méth. Eur. Lép. p. 16 (1840). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 96.

Acca, p. Hübner, Verz. bek. Schmett.

LIMENITIS, p. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 96.

NEPTIS, p. Horsfield, Cat. Lep. Mus. E.I.C. t. 7, f. 8.

Biblis, p. Horsfield; id. t. 8, f. 4.

362. LIMENITIS PROCRIS, Cramer Sp.

- Papilio Procris, Cramer, Pap. Exot. II. t. 106, f. E.F. (1779). Fabricius, Ent. Syst. III. pt. I. p. 138.
- Limenitis Procris, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 97. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 7.
- Nymphalis Procris, Godart, Enc. Méth. IX. p. 404.
- Biblis Procris, Horsfield, Cat. Lep. Mus. E.I.C. t. 7, fig. 8.
- a. b. c. d. f. Q. Java. From Dr. Horsfield's Collection.
- e.f. ♂♀. N. India. Presented by Colonel Sykes.
- g. h. J. N. India. Presented by Colonel Buckley.

The larva and pupa of *Limenitis Procris* are figured on Plate V., fig. 12, 12a, from Java, where it "feeds on a species of *Nauclea*, bearing the native name of *Kleppu*. June."—(Horsfield, MS. Notes.)

363. LIMENITIS ZULEMA, E. Doubleday.

- Limenitis Zulema, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 2, t. 34, f. 1 (1850).
- a. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

364. LIMENITIS ALANKARA, Horsfield Sp.

Aconthea Alankara, Horsfield, Cat. Lep. Mus. E.I.C. t. 5, f. 6 (1829).

Limenitis Alankara, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 14.

a. d. Java. From Dr. Horsfield's Collection.

Remark.—This species also inhabits Malacca and Sumatra.

365. LIMENITIS PADUKA, Moore.

Limenitis Paduka, n. sp.—This is larger than Lim. Alankara, and has the upper-side darker: fore-wing with the white patch at the apex larger, the marginal zigzag marking thicker, and with blackish

markings between: on the hind-wing the fascia terminates very narrowly on the abdominal margin, where it is bluish; the marginal zigzag markings are less defined and wider apart, and with blackish markings between. In the female, the wings are more rounded than in the other sex. Expanse $2\frac{3}{8}$ inches.

a. b. 3 ?. Borneo. Presented by Hugh Low, Esq.

366. LIMENITIS ISMENE, E. Doubleday.

- 3 Limenitis Ismene, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 10, t. 34, f. 2 (1850).
- a. b. c. d. Silhet. Presented by Colonel Buckley.

367. LIMENITIS DARAXA, E. Doubleday.

Limenitis Daraxa, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 11, t. 34, f. 4 (1850).

- a. b. c. d. ♂ ♀. Darjeeling. From Pearson's Collection.
- e. f. g. N. India. Presented by Lieutenant Hugo James.

368. LIMENITIS DUDU, Westwood.

Limenitis Dudu, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 13 (1850).

- a. J. N. India. Presented by Lieutenant Hugo James.
- b. c. d. o o . Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- e. J. Parjeeling. From Messrs. Schlagintweit's Collection.

369. LIMENITIS DANAVA, Moore (Plate VIa, fig. 2, ♂♀).

Limenitis Danava, n. sp.—Male: UPPER-SIDE dark olive-brown from base to disc of fore-wing, and from base to one-third of hind-wing, the rest being pale olive-brown; a transverse dark band crossing the disc of fore-wing and middle of hind-wing; a dark submarginal wavy line and two indistinct inner wavy lines crossing both wings; some indistinct markings within the discoidal cell with paler centres,

and a small green patch at anal angle. Under-side of a golden-glossed obscure ashy-brown ochreous colour: fore-wing with markings at the base; a transverse row of lunulated marks, and an indistinct submarginal row of very small spots, purple-ashy; also a whitish patch at the apex, and a narrow yellowish line across the disc: hind-wing with broad inner and submarginal band purple-ashy, the latter with small whitish spots along its middle; two marks within and one above the discoidal cell whitish. Female: Upper-side with portions at the base, as in male, dark brownish-green; the middle of both wings white, with broad greenish-brown band crossing the disc; exterior margins broadly paler greenish-brown, with green patch at the anal angle; markings at base of wings pale. Under-side pale greenish-yellow, with greenish-golden gloss; bands and markings as in upper-side, but less distinct and whitish. Expanse from 3 to 3\frac{1}{2} inches.

- a. b. d. Darjeeling. From Pearson's Collection.
- c. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- d. e. f. \circ . N. India. Presented by Colonel Buckley.

370. LIMENITIS ZAYLA, E. Doubleday.

Limenitis Zayla, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 276, n. 12, t. 35, f. 4 (1850).

- a. b. J. Darjeeling. From Pearson's Collection.
- c. g. N. India. Presented by Colonel Buckley.
- d. e. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus Nov. PANDITA, Moore.

Head rather small.

Eyes prominent, naked.

Labial palpi rather short, directed upwards to about the middle of the eyes, extended a little in front of the head, hairy; those at the base long; apical joint conic.

Antennæ rather longer than half the fore-wing, straight, with an elongated slender club.

Thorax moderately robust, covered with scales, the sides hairy.

Fore-wings elongate-trigonate, anterior margin arched, apical angle

rounded; exterior margin two-thirds the length of anterior, more or less scalloped; posterior margin about the same length as exterior, somewhat rounded near the base and the angle; costal vein moderately strong, extending to the middle of anterior margin; subcostal vein with its first branch arising at one-fourth of the wing from the base, and extending to the costal margin at one-third from the apex, second branch arising a little beyond the first, some distance before the extremity of the discoidal cell, and terminating one-fourth from the apex, third branch commencing at one-third from, and extending to, the apex, fourth branch at one-fifth of the wing, and terminating a little below the apex; first disco-cellular vein very short, almost obsolete, commencing obliquely a little beyond the base of the third subcostal branch; second disco-cellular vein five times the length of the first, descending in an oblique inward curve; third disco-cellular vein rather slender, but distinct, long, descending straight, but uniting in a curve with the third median veinlet immediately above its origin, thus closing the discoidal cell.

Hind-wings quadrate-trigonate; the extreme base of the anterior margin arched, the rest of it nearly straight; exterior margin somewhat rounded, scalloped; abdominal margin grooved, about the same length as anterior; precostal vein curved outwardly; costal vein arched to about the middle, and then straight to the apex; subcostal vein branching off nearly straight, opposite the junction of the precostal; first disco-cellular vein straight, oblique, arising a little beyond the subcostal; lower disco-cellular vein obsolete; discoidal cell open.

Fore-legs very small, with fine silky hairs; femur rather longer than the tibia; tarsus half the length of the tibia, simple: the other legs broken off.

Abdomen rather small, slender, hairy.

Remark.—This genus is somewhat allied to Limenitis and Heterochroa.

371. PANDITA SINOPE, Boisduval Sp. (Plate VIa, fig. 3).

Adolias Sinope, Boisduval, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 292, n. 25 (1850).

a. J. Java. From Dr. Horsfield's Collection.

Pandita Sinope, n. sp.—UPPER-SIDE bright fulvous: fore-wing with the costal margin and basal half of wing golden-brown; extended the state of the st

rior margin, submarginal line, a pale inner parallel line, also a rather broad zigzag band, curving outward across the disc from the apical third of the costal margin to inner margin near angle, and transverse markings within and below discoidal cell, black: hindwing with the base golden-brown; abdominal margin plain dull-brown; a broad exterior marginal band, a submarginal line, an inner broad band, also a rather zigzag ill-defined band across the disc, and markings about the discoidal cell, black, the black colour being darkest on the submarginal lines and discoidal markings. UNDERSIDE paler fulvous, the markings the same as in upper-side, but very indistinct; body and abdominal margin grey. Expanse of wings $2 \cdot 100$ inches. Sexes alike. Female in British Museum.

Stirps IV., with THYSANURIFORM Larva.

THYSANURIFORM, Horsfield, Cat. Lep. Mus. E.I.C. p. 48 (1828).

RASORIAL, or THYSANURIFORM, Swainson, Cab. Cyclop. pp. 58, 62 (1840).

PAP. DANAÏ FESTIVI (part), Linnæus.

PAP. NYMPHALES, GEMMATI et PHALERATI (part), Linnæus.

LEP. TETRAPODA (part), Latreille, Règ. Anim. V. p. 378 (1829).

NYMPHALIDE (part), Swainson, Phil. Mag. I. p. 187 (1827); id. Cab. Cyclop. pp. 86, 92 (1840). Stephens, Brit. Ent. Haust. I. p. 27 (1827); id. List Brit. Lep. Brit. Mus. pt. I. p. 6 (1850). Westwood, Introd. to Ent. II. p. 353 (1840); id. in Doubleday and Hewitson's Diurnal Lep. p. 144 (1852). Dup. C. p. 8 (1846). Stainton, Manual Brit. Butt. pp. 10, 21 (1856).

NYMPHALIDES (part), Boisduval, Spéc. Gén. Lép. I. p. 165 (1836); id. Ind. Méth. Eur. Lép. p. 16. Blanchard, Hist. Nat. des Ins. II. p. 331.

NYMPHALII et NYMPHALITES (part), Blanchard, Hist. Nat. des Ins. 11. pp. 322, 329, 333 (1845).

NYMPHALIDI (part), Stephens, List Brit. Lep. Brit. Mus. pt. 1. p. 10 (1850). Stainton, Manual Brit. Butt. pp. 21, 33 (1856).

APATURIDES, Boisduval, Ind. Meth. p. 24 (1840).

Morphides, Boisduval, Spéc. Gén. Lép. 1. p. 166 (1836).

Morphites, Blanchard, Hist. Nat. des Ins. II. p. 334 (1845).

Morphidæ, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 332 (1851).

Brassolides, Boisduval, Spéc. Gén. Lép. 1. p. 166 (1836).

Brassolites, Blanchard, Hist. Nat. des Ins. II. p. 331 (1845).

Brassolide, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 350 (1851).

Satyrides, Boisduval, Spéc. Gén. Lép. I. p. 166 (1836); id. Ind. Méth. Eur. Lép. p. 25.

Sattride, Swainson, Cab. Cyclop. pp. 86, 93 (1840). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 352 (1851).

SATTRITES, Blanchard, Hist. Nat. des Ins. II. p. 335 (1845).

Saturidi, Stephens, List Brit. Lep. Brit. Mus. pt. I. p. 6 (1850).

Biblides, Boisdural, Spéc. Gén. Lép. I. p. 167 (1836).

BIBLITES, Blanchard, Hist. Nat. des Ins. II. p. 332 (1845).

Eurytelide, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 403 (1851).

LIBYTHIDES, Boisduval, Spéc. Gén. Lép. I. p. 167 (1836); id. Ind. Méth. p. 23.

LIBYTHEITES, Blanchard, Hist. Nat. des Ins. II. p. 332 (1845).

LIBYTHEIDE, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 412 (1851).

Genus ADOLIAS, Boisduval.

Adolias, Boisduval, Spéc. Gén. Lép. Planches, p. 2, t. 3, f. 2 (1836). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 289.

Aconthea, Horsfield, Cat. Lep. Mus. E.I.C. t. 8, f. 6 (1829); Zool. Journ. V. p. 65 (1830).

SYMPHEDRA, EUTHALIA, CYMOTHOE, pt. Hübner.

NYMPHALIS, pt. Godart.

ITANUS, E. Doubleday, MS.

372. ADOLIAS ACONTHEA, Cramer Sp.

∂ ♀ Papilio Aconthea, Cramer, Pap. Exot. 11. t. 134, f. D. E. ∂, F. G. ♀ (1779).

Adolias Aconthea, Boisduval, Spéc. Gén. Lép. List of Plates, p. 2, t. 3, f. 2 (1836). E. Doubleday, List Lep. Brit. Mus. pt 1. p. 103. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 1.

Nymphalis Aconthea, Godart, Enc. Meth. 1X. p. 383.

Cymothoë Aconthea, Hübner, Verz. bek. Schmett. p. 39.

3 Nymphalis Disconthea, Godart, Enc. Méth. IX. p. 384 (1819).

Aconthea primaria, Horsfield, Cat. Lep. Mus. E.1.C. t. 8, f. 6 (1829).

a. b. c. d. e. f. ♂♀. Java. From Dr. Horsfield's Collection.

The transformations of *Adolias Aconthea* are figured on Plate VI., fig. 1, 1a, from Java, and "feeds on the Mango."—(Horsfield, MS.)

373. ADOLIAS PARTA, Moore.

Adolias Parta, n. sp.—Male: Upper-side dark brown, with a vinaceous tinge: fore-wing with a paler transverse band, margined broadly on both sides with black, the anterior portion within, from

costal margin on both sides, with a series of small white patches; marks within discoidal-cell black, with dark-brown centres: hindwing with an inner blackish band and outer row of small black spots. Under-side paler, marked as above. Female: Upper-side pale brown: fore-wing with broad whitish curved transverse band, with patch on costa, and dark margins: hind-wing with rather broad inner band, and outer zigzag line, the point between each vein with a minute darker dot; space between inner band and base tinged with white; marks at base of wings blackish. Under-side pale dull ochreous, with paler margins; markings as above, but very indistinct. Expanse of male $2\frac{\pi}{8}$, female, $2\frac{\pi}{8}$ inches.

 a. \(\gamma\). Borneo. Presented by Edwin Shepherd, Esq., 1857.

The male of Adolias Parta is in the Collection of W. W. Saunders, Esq.

374. ADOLIAS GARUDA, Moore.

Adolias Garuda, n. sp. - Male: UPPER-SIDE glossy greenishbrown: fore-wing with costal margin to its middle, a broad irregular band from thence to posterior margin, black, the latter bordered exteriorly, anteriorly from costal vein, with five white spots; two small white spots on costal margin one-fourth from the apex; exterior margin and submarginal band blackish; within discoidal-cell, first a short line, then two reniform marks, black: hind-wing with curved dentate blackish band from middle of anterior margin to near abdominal margin; a submarginal row of small deep-black spots; exterior margin near anal angle blackish; within discoidalcell some black markings, and two small black spots without, one above, the other below the cell. UNDER-SIDE light chocolate-brown, greyish towards the base: fore-wing with black marks within discoidal-cell as above, and a small black spot below it; the row of five white spots and the two apical spots as above; from the latter, across the disc to posterior margin, runs a narrow interrupted black band: at the apex and along the exterior margin some bluish-grey spots: hind-wing with four lines within discoidal-cell, a small spot, and two oval marks above, black; an indistinct band across the disc; submarginal row of black spots as above; a patch of bluish-grey at anterior angle. Female pale brown, with a greenish gloss: UPPER-SIDE with markings as in male, but less defined; the row of white spots of the fore-wing are larger, and the submarginal row of black

spots on the hind-wing are also larger than in the male. UNDERSIDE as in that of the male. Wings shaped as in Adol. Aconthea. Expanse of male $2\frac{3}{8}$, female, $2\frac{7}{8}$ inches.

a. b. c. ♂♀. N. India. Presented by Colonel Sykes. d. e. ♂♀. N. India. Presented by Colonel Buckley. f. g. ♂♀. Madras. From Captain J. M. Jones's Collection.

The transformations of Adolias Garuda are figured on Plate VI., fig. 2, 2a, from General Hardwicke's original drawings in the British Museum.—"Feeds on Trophis aspera and on a species of Bryonia. March."—(Hardwicke.)

The transformations of this species were also observed by A. Grote, Esq., of Calcutta, and are figured among his original drawings. It "feeds upon the Mango."

375. ADOLIAS PHEMIUS, E. Doubleday Sp.

- J Itanus Phemius, E. Doubleday, MS.
- 3 Adolias Phemius, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 13, t. 41, f. 4 (1850).
 - a. 3. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Both sexes of Adolias Phemius are in the British Museum Collection.

376. ADOLIAS ANOSIA, Boisduval MS.

Adolias Anosia, n. sp.—Male: Upper-side dark ash-green, with the anterior margin of hind-wing broadly pinky-brown: fore-wing with broad transverse band of ashy-white irrorations; black markings within discoidal-cell, and some below it, bordered with ashy-white irrorations: hind-wing with ashy-white irrorations on lower part of the disc, bordering the discoidal marks, and a spot above and below the cell, also bordering a submarginal row of black spots. Underside creamy ash-colour, palest on the anterior half, which is covered with rather indistinct darker short transverse striæ; markings within and about discoidal-cell black; on the hind-wing an indistinct submarginal row of black spots. Female: Upper-side paler ashgreen than the male; exterior margins brownish; markings disposed the same; fore-wing with a curved row of five white spots from

middle of costal margin; the irrorated band paler and more clearly defined; an indistinct inward oblique row of black spots from near apex to near middle of posterior margin: hind-wing with indistinct black curved band from middle of anterior to middle of abdominal margin; also an indistinct submarginal row of black spots. Underside paler than in the male, marked as upper-side, with the curved row of five spots bordered inwardly with dark brown; the indistinct oblique row of blackish spots from apex only to middle of the disc, the lower part being suffused with dark brown; exterior margin dark brown: hind-wing with indistinct inner band and submarginal row of large dark-brown spots; anterior wing in both sexes much falcated. Expanse of male $2\frac{1}{2}$, female, 3 inches.

a. b. c. d. 3 ?. N. India. Presented by Colonel Sykes.

377. ADOLIAS ALPHEDA, Godart Sp.

Nymphalis Alpheda, Godart, Enc. Méth. IX. p. 384 (1819).

Adolias Alpheda, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 20.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

378. ADOLIAS ADONIA, Cramer Sp.

§ Papilio Adonia, Cramer, Pap. Exot. III. t. 255, f. C.D.
(1782).

Adolias Adonia, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 11.

Euthalia Adonia, Hübner, Verz. bek. Schmett. p. 41.

Nymphalis Adonia, Godart, Enc. Meth. IX. p. 400.

S Aconthea Lubentina, apud Horsfield, Cat. Lep. Mus. E.I.C. t. 5, f. 5.

a. b. $\ensuremath{\mathfrak{F}}$? Java. From Dr. Horsfield's Collection.

379. ADOLIAS LUBENTINA, Cramer Sp.

Papilio Lubentina, Cramer, Pap. Exot. II. t. 155, f. C.D. (1779). Fabricius, Ent. Syst. III. pt. I. p. 121 (1793). Donovan, Ins. of China, t. 36, f. 3, d.

Adolias Lubentina, Boisduval. E. Doubleday, List Lep.

Brit. Mus. pt. I. p. 103. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 10.

Euthalia Lubentina, Hübner, Verz. bek. Schmett. p. 41. Nymphalis Lubentina, Godart, Enc. Méth. IX. p. 400.

- a. b. 3 ?. N. India. Presented by Colonel Buckley.
- c. 9. N. India. Presented by Colonel Sykes.
- d. J. N. India. Presented by Edwin Shepherd, Esq., 1857.

The male of Adol. Lubentina is correctly figured by Donovan, and the female by Cramer.

The transformations of Adolias Lubentina are figured among the original drawings of A. Grote, Esq., of Calcutta, and will be drawn on a subsequent Plate of this Catalogue.—"Feeds upon Loranthus."

380. ADOLIAS SALIA, Moore.

Adolias Salia, n. sp.-Male: UPPER-SIDE deep dark brown: forcwing from costal margin near apex to posterior margin near angle, a narrow zigzag white line, margined outwardly with black and then with dull blue; within the anterior portion of this line the groundcolour is paler; indistinct black markings at the base; narrow cilia spotted with white: hind-wing, from anterior margin near angle, a rather broad white band, slightly curving to abdominal margin near anal angle, and which is margined outwardly with a zigzag black line, the points being inward; anterior angle pale brown; from anal angle outside the band, dull blue; narrow cilia white. Under-side dull ochreous; the transverse band of the fore-wing broad, and partly brown anteriorly, white posteriorly, and both wings margined within with dusky black, and outwardly with zigzag black line; markings at base of wing black; exterior margin dusky; body and abdominal margin greenish-ochreous. Female dull brown: fore-wing with broad tapering transverse white band, intersected by the veins, and suffused more or less with brown anteriorly on the inner portion, and margined outward with a narrow lanceolate black line, the points being inward; base of wing with indistinct black marks: hind-wing with broad white band, intersected by the veins, slightly curving from anterior margin to abdominal margin near anal angle, being margined outwardly with broad lanceolate black marks, the point being inward, these again being narrowly margined outwardly with white; base of wing with indistinct marks; narrow cilia

spotted with white. UNDER-SIDE ochreous; markings as above, but the bands less distinct; body and abdominal margin greenish-grey. Shape of wings as in Ad. Aconthea; expanse of male $2\frac{1}{8}$, female, $2\frac{1}{8}$ inches.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

381. ADOLIAS PALGUNA, Moore.

Adolias Palguna, n. sp.—Male: UPPER-SIDE dull brown, dusky about the apex: fore-wing with a transverse band of irregular-shaped white spots, more or less suffused with brown, the outer margins of which have lanceolate black marks pointing inward; base of wing with indistinct marks: hind-wing with narrower curved white band from anterior margin to anal angle, margined outwardly with a broad lanceolate mark between each vein, and again by bluish-white; inner portion of dise pale, with indistinct black marks at base of wing. Under-side pale greyish-white, tinged with ochreous at the base and apex; with markings as above, but very indistinct; abdominal margin greenish-grey. Female, above as in male, but paler, the under-side being tinged with very pale purple on the exterior half. Wings shaped as in Ad. Trigerta; expanse of male 2½, female, 2¾ inches.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

382. ADOLIAS PULASARA, Moore.

Adolias Pulasara, n. sp.—Allied to Adol. Palguna, but differs in the male on the upper-side, in the fore-wing, in having the transverse band tinged with hyaline-blue; there is also a cyaneous tinge about the extremity of the cell: the band on the hind-wing is rather broader, and composed of less lanceolate portions. Under-side very pale ochreous, band of fore-wing tinged with pale hyaline-blue: hind-wing with two rows of small deep-black lanceolate spots (representing the band of the upper-side); base of wing with a number of deep-black marks. Female: Upper-side as in male, and the under-side with paler markings. Expanse of male 2½, female, 3 inches.

a. ?. Pinang. Presented by Dr. Cantor.

Remark.—The male of Ad. Pulasara is in the Collection of W. W. Saunders, Esq.

383. ADOLIAS PUSEDA, Moore.

Adolias Puseda, n. sp.—Female: Upper-side brown, with a pale purple tinge: fore-wing with a broad band of irregular-shaped purplish hyaline-like spots, each spot being concave on the outward margin; also a submarginal row of ill-defined whitish spots; base of wing with indistinct black marks: hind-wing with two curved rows of indistinct whitish spots, with some indistinct blue spots between the two rows. Under-side ochreous, whitish on the exterior margins; band of fore-wing bluish-white, bound outwardly narrowly with brown; distinct black marks within discoidal-cell: hind-wing with two narrow curved indistinct ochreous-brown bands. Expanse 3 inches.

 $a. \ \$?. Pinang. Presented by Dr. Cantor.

384. ADOLIAS TRIGERTA, Moore.

Adolias Trigerta, n. sp.—UPPER-SIDE dark brown: male, forc-wing with a transverse row of six whitish spots, more or less suffused with brown, from subcostal vein one-third from the apex to near posterior margin near the angle, the first two spots being long and oval, third the smallest, fourth and fifth larger than the third, and both alike, sixth smaller and heart-shaped, all of them terminating outward in a point, which is bounded by black; base of wing with indistinct black markings; posterior margin at the angle with a small blue patch: hind-wing with a band of seven clear white spots, curving from anterior margin near the angle to abdominal margin near the anal angle, these spots having within each on the outward portion a black lanceolate mark pointing outward, these being slightly margined laterally with blue, and those nearest the anal angle with a short black line crossing the vein above the lanceolate mark; base of wing with indistinct black markings; abdominal margin pale brown. Under-side greyish: fore-wing with the costal margin and basal half ochreous-yellow; the band of spots less distinct than above, but bounded inwardly with black lunulated marks, and outwardly with a black spot at the point of each; the markings at the base of the wing broadly black: hind-wing with a purple-red tinge on the anterior half; the band of spots less defined, bounded inwardly with black lunulated marks, and outwardly with triangular black spots, those near the anal angle with a narrow line above: base of wing with broad black marks within, above, and below the discoidal-cell; body and legs ochreous. Female above as in the male, but with the markings larger; under-side as in male, but the markings less distinct. Expanse of male $2\frac{1}{2}$, female, $2\frac{3}{4}$ inches. Hind-wings of the male rounded, as in female.

a. b. c. d. ♂ ?. Java. From Dr. Horsfield's Collection.

385. ADOLIAS IAPIS, Godart Sp.

Nymphalis Iapis, Godart, Enc. Méth. IX. p. 382 (1819). Lucas, Hist. Nat. Lep. Exot. t. 69, f. 1.

Adolias Iapis, Boisduval. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 104. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 8.

a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.

386. ADOLIAS AMBALIKA, Moore.

Adolias Ambalika, n. sp.—Female: UPPER-SIDE dark brown: forewing with transverse band of white spots, each spot with a long black point outward, between the veins; also an outer row of less-defined lanceolated whitish marks; black markings at base of the wing: hind-wing with transverse band of smaller spots as in forewing, also with an outer row of lanceolate marks. UNDER-SIDE pale ochreous, marked as above, with the black marks to the white band broader. Variety: UPPER-SIDE much darker brown: fore-wing with the transverse band suffused with brown; space between the band to near exterior margin blaish: hind-wing with less-defined band of smaller lanceolate marks, between which to near exterior margin bluish, centred with whitish lanceolate marks. Under-side dull ochreous, with brown margins; band of lanceolate marks as above, but less suffused with brown. Expanse 3 inches.

a. \(\gamma\) var. Borneo. Presented by Hugh Low, Esq.

387. ADOLIAS JAHNU, Moore.

Adolias Jahnu, n. sp.—Female: Upper-side obscure brown, glossed with green: fore-wing with two indistinct black zigzag lines across the disc, tinged with white anteriorly; markings at base of wing large and indistinct: hind-wing with two indistinct black zigzag lines across the disc, also indistinct black basal marks. Under-side ochreous brown, with transverse zigzag black lines and

basal marks as above; apex of fore-wing with a white spot and a blackish patch; exterior margin dusky; basal half of hind-wing, and along the outer zigzag line, with a bluish-grey tinge. Anterior wings falcate; expanse 31 inches.

a. 9. Darjeeling. From Messrs. Schlagintweit's Collection.

388. ADOLIAS SIKANDI, Moore.

Adolias Sikandi, n. sp.—Female: UPPEE-SIDE obscure glossy pale greenish-brown: fore-wing with the disc from middle of anterior to middle of posterior margin white, sharply defined inwardly from the basal half by an irregular zigzag division; also parallel ill-defined brown and white spots; two large black marks within discoidal cell: hind-wing with narrow curved white band, tapering from middle of anterior to near middle of abdominal margin, and sharply defined inwardly from the basal half; a submarginal row of deep-brown lunular spots; blackish marks within discoidal-cell. Under-side ashy-grey, tinged with blue, basal half dark, exterior half very pale; markings as above; on hind-wing a small red spot in centre of anterior basal mark. Shape of wings as in Ad. Evelina; expanse 3; inches.

a. 9. Java. From Dr. Horsfield's Collection.

389. ADOLIAS EVELINA, Stoll Sp.

¿ Papilio Evelina, Stoll, Suppl. Cramer's Pap. Exot. t. 28, f. 2, 2B (1791).

Adolias Evelina, Boisdaval. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 104. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 7.

Nymphalis Evelina, Godart, Enc. Méth. IX. p. 401.

Adolias Derma, Kollar, in Hügel's Kaschmir, IV. pt. 11. p. 436 (1844). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 292, n. 23.

a. b. c. d. $\upred \upred \upred\upred \upred \upred \upred \upred \upred \upred \upred \upred \upred \upred$

390. ADOLIAS COCYTINA, Horsfield Sp.

3 Aconthea Cocytina, Horsfield, Zool. Journ. V. p. 67, t. 4, f. 3, 3a (1830).

Adolias Cocytina, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 3.

3 Papilio Cocyta, Fabricius,* Ent. Syst. III. pt. I. p. 127 (1793). Jones, Icon. IV. t. 64, f. 2.

Nymphalis Cocyta, Godart, Enc. Méth. IX. p. 382.

Adolias Cocyta, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 104.

Adolias Godartii, G. R. Gray, Cat. Lep. Ins. Nepal, p. 14, t. 12, f. 2 (1833).

- a. d. Borneo. Presented by Hugh Low, Esq.
- b. c. d. 3. Borneo. Presented by Edwin Shepherd, Esq., 1857.

391. ADOLIAS COCYTUS, Fabricius Sp.

Papilio Cocytus, Fabricius, Mant. Ins. II. p. 29 (1787); Ent. Syst. III. pt. I. p. 55.

Adolias Cocytus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 9.

Nymphalis Cocytus, Godart, Enc. Méth. 1X. p. 368. Adolias Sidera, Boisduval, MS.

a. b. c. ♂ ♀. N. India. Presented by Colonel Sykes.
d. e. ♂. Canara, S. India. Presented by S. N.
Ward, Esq.

392. ADOLIAS ADIMA, Moore.

Adolias Adima, n. sp.—Male: UPPER-SIDE yellowish olive-brown, with two indistinct zigzag 'ines crossing the disc of both wings, and markings about the base of the wings blackish. UNDER-SIDE pale ferruginous, palest at the base of fore-wings, with inner row of lunulated marks and outer row of spots crossing the disc of both wings, and markings at the base of the wings, black, the spots being deepest from anal angle, where they are margined with bluish-white; abdominal margin broadly, and about anal angle somewhat, green. Expanse 2½ inches.

a. d. Assam. From Griffith's Collection.

The male of Adolias Adima may at once be distinguished from Ad. Apiades by its plain brown upper-side.

^{*} But not Pap. Cocytus, Fabricius.

393. ADOLIAS APIADES, Menetries.

- 3 Adolias Apiades, Monetries, Cat. Lep. Mus. Imp. Acad. of Sci. St. Petersburg, pt. II. t. 1X. f. 4 (ined.).
 - a. b. c. d. e. 3. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

394. ADOLIAS SANCARA, Moore.

Adolias Sancara, n. sp.—Male: UPPER-SIDE brown: fore-wing with an outward oblique white band from middle of costal margin to near posterior margin above the angle; also two small white spots near the apex; an indistinct blackish transverse band from near apex of fore-wing to abdominal margin; also an indistinct narrow submarginal blackish band on the hind-wing; black marks within the discoidal-cell. UNDER-SIDE greyish-brown, greyer at the base and along exterior margins; marked as above. Female darker, and marked as in male. Expanse of male 3½, female, 3½ inches.

- a. d. N. India. Presented by Colonel Sykes.
- b. \(\color \). Darjeeling. From Messrs. Schlagintweit's Collection.

395. ADOLIAS IVA, Moore.

Adolias Iva, n. sp.—Male: UPPER-SIDE very dark olive-green: fore-wing with oblique row of large, long greenish-white spots from middle of costal margin to near posterior angle, beneath which is a small narrow geminated spot near the middle of the posterior margin; also two small spots obliquely near the apex, and a small whitish patch at the posterior angle: hind-wing with a row of broadly-separated small round greenish-white spots curving from middle of costal margin to middle of the wing; also black marks within discoidal-cell. Under-side deep greenish-grey, dusky about the anterior half, and blackish along the posterior margin; markings as above, but the spots on the hind-wing extending nearly to abdominal margin. Shape of wings as in Adolias Epiona; expanse 4 inches.

a. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Adolias Iva may be known from Adolias Epiona by its very dark upper-side, and by the oblique band being composed of much longer spots, and by its deep greyish-green under-side.

396. ADOLIAS EPIONA, G. R. Gray Sp.

- Aconthea Epiona, G. R. Gray, List Lep. Nepal, p. 13 (1833).
- Adolias Doubledayii, Boisdural, MS. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 104 (1844). G. R. Gray, List Lep. Nepal, p. 13, t. 13. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 15.
- Adolias Patala, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 435 (1844).
- a. b. c. d. e. ♂ ♀. N. India. Presented by Colonel Buckley.

397. ADOLIAS DURGA, Moore.

Adolias Durga, n. sp.—UPPER-SIDE dark olive-green, with a black marginal and submarginal band; a broad transverse band of irregular-shaped white spots crossing from middle of costal margin of fore-wing to beyond the middle of the hind-wing, near the anal angle, being margined exteriorly with blue from the fore-wing on its lower half to anal angle; the narrow space between marginal and submarginal bands also bluish; two small rounded white spots near the apex of fore-wing; marks within discoidal-cells black. UNDER-SIDE from inner margin of band to base greenish-grey, from its outer margin to extremity of wing greenish, with band and apical spots as above; a row of blackish marks from apical spots to posterior angle, which is whitish; also an indistinct dusky submarginal row on the hind-wing, and at the anal angle two patches of black; marks at the base of wings black; ciliæ between the indentations on the upper and under-side white. Sexes alike. Expanse 4 inches.

a. b. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

398. ADOLIAS TEUTA, E. Doubleday.

- d Adolias Teuta, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 5, t. 44, f. 2 (1850).
 - a. b. c. d. 3 ?. Silhet. Presented by Colonel Buckley.
 - e. d. Java. From Dr. Horsfield's Collection.

399. ADOLIAS FRANCIÆ, G. R. Gray.

- Adolias Franciæ, G. R. Gray, List Lep. of Nepal, p. 12, t. 14 (1833). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 104. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 14.
- a. b. J. Darjeeling. From Pearson's Collection.
- c. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- d. 3. Darjeeling. From Messrs. Schlagintweit's Collection.

400. ADOLIAS CORESIA, Hübner Sp.

- § Hypolimnas Coresia, Hübner, Samml. Exot. Schmett.

 Band II. t. (1806-27).
 - Adolias Coresia, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 105.
- 3 Acontheu Apaturina, Horsfield, Zool. Journ. V. p. 68, t. 4, f. 1, 1α (1830).
 - Adolias Apaturina, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 4.
 - a. b. 3 (A. Apaturina, Horsf.) Java. Presented by Dr. Horsfield.
 - c. J. Java. From Mr. Argent's Collection.

401. ADOLIAS NICEA, G. R. Gray.

- Aconthea Nicea, G. R. Gray, Lep. Ins. of Nepal, p. 13, t. 12, f. 1 (1833).
- Adolias Nicea, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 105. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 2.
- a. b. ♂ ♀. N. India. Presented by Colonel Sykes.
- $c. \ ?. \ N. \ India. \ From T. \ Tatum, Esq.$
- d. e. ♂. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

402. ADOLIAS NESIMACHUS, Boisduval.

Adolias Nesimachus, Boisduval, in Cuvier's Règ. Anim. edit. Crochard, Ins. t. 139, f. 1 (). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 105. Westwood,

- in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 12.
- Argynnis Hippomenes, Kuden, in Herr Schæffer's Lep. Exot. ser. II. fasc. 1 et 2, fig. 11, 12 (1853).
- a. b. d. Assam. From Griffith's Collection.
- c. d. 3 ?. N. India. Presented by Colonel Buckley.
- e. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

403. ADOLIAS DIRTEA, Fabricius Sp.

- Papilio Dirtea, Fabricius, Ent. Syst. III. pt. I. p. 59
 (1793). Jones, Icon. IV. t. 65, f. 1.
 - Adolias Dirtea, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 104. G. R. Gray, List Lep. Nepal, p. 12, t. 10, f. 1, \, \chi\$, 2, \, \delta\$. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 17, t. 44, f. 1, \, \chi\$.
 - Aconthea Boisduvali, G. R. Gray, MS. Boisduval, Spéc. Gén. Lép. I. t. 8, f. 2.
- a. d. Assam. From Griffith's Collection.
- b. d. N. India. From T. Tatum, Esq.
- c. \circ . N. India. Presented by the Trustees of the British Museum.
- $d. \circ .$ Pinang. Presented by Dr. Cantor.
- e.f. $\sigma \circ$. Borneo. Presented by Hugh Low, Esq.
- $g. \ \circ$. Borneo. Presented by Edwin Shepherd, Esq.

404. ADOLIAS SIVA, Westwood.

- Aconthea Doubledayi, Westwood, Cabinet Oriental Ent. p. 76, t. 37, f. 4 (1847).
 - Adolias Siva, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 291, n. 18 (1850).
 - a. ¿. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus EURIPUS, E. Doubleday.

Euripus, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 293 (1850).

405. EURIPUS HALITHERSES, E. Doubleday.

Euripus Halitherses, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 293, t. 51, f. 2 (1850).

- a. d. Darjeeling. From Pearson's Collection.
- b. c. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- d. e. f. ♂. Darjeeling. From Messrs. Schlagintweit's Collection.

406. EURIPUS HALLIROTHIUS, Westwood.

Euripus Hallirothius, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 293 (1850).

- a. J. N. India. Presented by Colonel Buckley.
- b. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—The females of both these species are at present unknown.

Genus HERONA, E. Doubleday.

Herona, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 293 (1850).

407. HERONA MARATHUS, E. Doubleday.

Herona Marathus, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 294, t. 51, f. 3 (1850).

- a. d. Assam. Presented by Colonel Hearsey.
- b. ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus CASTALIA, Boisduval.

Castalia, Boisdural, MS.

408. CASTALIA DICHROA, Kollar Sp.

Limenitis dichroa, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 429, t. 8, f. 1, 2 (1844).

Apatura dichroa, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 305, n. 21.

Castalia Nyctis, Boisduval, MS.

- Simla. Presented by the Trustees of the British Museum.
- b. J. N. India. Presented by Colonel Buckley.

Castalia dichroa may be distinguished from Castalia Chandra by the exterior margin of the fore-wings being much less deflexed in the middle, and by having all the markings of the upper-side of the fore-wing orange-colour, and being without the black spots in the discoidal-cell of the hind-wing, and on the under-side by the pearly-white on the hind-wings. Expanse of wings 2; inches.

409. CASTALIA CHANDRA, Moore (Plate VIa, fig. 4).

Castalia Chandra, n. sp.—UPPER-SIDE: fore-wings jet-black, with a greenish gloss at the apex; a transverse curved row of four orangecoloured spots from costal margin one-fourth of the wing to middle of posterior margin; a straight row of five white spots from middle of costal margin to near posterior angle; also two small and one minute white spot near the apex; a marginal and submarginal row of spots, those at the apex whitish, the marginal ill-defined, the submarginal rather large and clearly defined, and those to the posterior angle small and bluish: hind-wing clear orange-colour, with rather broad black posterior margin, centred with a marginal row of small whitish spots; also a parallel inner zigzag black band from anal angle to anterior angle, and extending along the costal margin, the black extending along the veins upwards and downwards to marginal band; a small black spot nearly at the base of and within discoidalcell, and another in the centre of the wing; on the thickest part of the inner band near anal angle is a small central bluish-white spot; abdominal margin broad dusky-white; body black; frontal tuft and neck spotted with white. UNDER-SIDE as above, but on the forewing the colours are brighter; the costal margin greenish-white, and there is also a whitish triangular spot at base of discoidal-cell: on the hind-wing along the marginal band is a row of bluish-white lunated spots; the spot on the thickest part of the inner band is large, as is also the central black spot within the discoidal-cell; at the base of the wing are a number of greenish-white spots; all the veins are broadly lined with black; body and abdomen on the sides spotted with white. Expanse of wings 3 inches.

- a. b. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- c. d. e. g. Darjeeling. From Messrs, Schlagintweit's Collection.

Genus nov. DILIPA, Moore.

This genus differs from the typical Apatura in having the discoidal cell closed in all the wings by a very delicate lower disco-cellular vein; the palpi and antenna are, however, like those of Apatura.

- 410. DILIPA MORGIANA, Westwood Sp. (Plate V1a, fig. 5, ₹ ?).
 - δ Apatura Morgiana, Westwood, in Doubleday and Hewitson's Diurnal Lep. ρ. 305, n. 22 (1850).
 - a. 3 (type). N. India. Presented by Colonel Buckley.

The female of *Dilipa Morgiana* is in the British Museum Collection, and differs from the male in being somewhat larger, and having all the spots of the fore-wing white, the broad band across the hind-wing being also white. Under-side as in male, but the spots white.

Genus APATURA, Fubricius.

Apatura, Fabricius, Syst. Gloss. (Illiger's Mag. V1. p. 280, 1807). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 302.

CATARGYRIA, DOXOCOPA, Hübner, Verz. bek. Schmett. (1816).

Chlorippe, Boisduval, MS. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 108 (1844).

NYMPHALIS, Blanchard.

411. APATURA AMBICA, Kollar.

- 3 Apatura Ambica, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 431, t. 8, f. 3, 4 (1844).
- ¿3 Apatura Namouna, E. Doubleday, Ann. Nat. Hist. XVI. p. 178 (1845); List Lep. Brit. Mus. pt. 1. App. p. 28. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 305, n. 18.

a. b. g. N. India. Presented by Colonel Buckley.

c. J. Darjeeling. From Pearson's Collection.

d. d. N. India. Presented by Lieutenant Hugo James.

e. 3. Darjeeling. From Messrs, Schlagintweit's Collection

A female of *Apat. Ambica* is in the Collection at the British Museum, and is distinguished from the male in being paler, and having none of that beautiful gloss on the upper-side; the spots are yellowish-white, and those along the exterior margins are larger.

412. APATURA PARVATA, Moore (Plate V1a, fig. 6).

Apatura Parvata, n. sp.—Male: Upper-side dark ferruginousbrown, darkest at the base, and bright about discoidal cell and along the exterior margin: fore-wing with blackish marks in discoidal cell; marginal and submarginal lines, and indistinct narrow interrupted transverse series of pale ferruginous spots from middle of anterior to posterior margin; also a series of five small white spots from anterior margin near the apex, below which is an indistinct black spot: hind-wing with narrow pale ferruginous band from middle of anterior margin to near middle of abdominal margin; also, near anal angle, a black spot encircled with ferruginous; abdominal margin dull ferruginous-brown. Under-side ferruginous, brightest on the fore-wings; markings disposed as above: fore-wing with the transverse series of spots distinct and white, being bounded inwardly with blackish patches; near the apex and posterior angle are some patches of black; the black spot on disc large; also a black patch on posterior base of the wing; marginal line ashy: hind-wing ferruginous-brown across the disc, with band as above white; on the lower part of the disc is a small black spot centred with blue and encircled with ferruginous; a marginal line and submarginal zigzag marks ashy. Expanse of wings 2 to 21 inches.

a. b. d. N. India. Purchased.

413. APATURA PARISATIS, Westwood.

Apatura Parisatis, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 305, n. 20 (1850).

u. o. Assam. From Griffith's Collection.

b. 9. Canara, S. India. Presented by S. N. Ward, Esq.

- c. d. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- e. f. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.
- g. 3. Java. From Mr. Argent's Collection.

Apatura Parisatis may be distinguished by its small size, and by the uniform jet-black colour of the upper-side of the uings; its under-side being varied with rich red-brown and chestnut, and with a slight whitish macular fascia across the middle of the wings, and a minute eye-spot near the anal angle. The female is dull-ferriginous; both upper and under-side with markings nearly similar to those of the under-side of the male, and with a curved row of small white dots near the apex of the fore-wings. Expanse of wings 1 to nearly 2 inches.

414. APATURA NAKULA, Moore.

Apatura Nakula, n. sp. - Female: Upper-side dull pale reddishbrown, darkest at the base: fore-wing with a broad transverse whitish band from anterior to posterior margin; two blackish reniform marks and a dot within discoidal cell; a row of five small white dots from anterior margin near the apex, the three first being encircled with black, and a small sixth spot wholly black; a narrow marginal line blackish, and submarginal line dark brown: hindwing with a broad nearly straight white band from anterior margin to near anal angle, where it is narrowest; an oval and two small black marks within discoidal cell; a narrow dark black marginal line; a submarginal row of dark-brown marks, bounded inwardly by a row of zigzag white marks; near the anal angle, between the middle and lower median veins, is a small black spot encircled with pale red; abdominal margin pale. UNDER-SIDE very pale ochreousbrown, with markings as above, but less distinct; the black spot on the fore-wing is rather large, but on the hind-wing this spot is very small. Expanse of wings 1,5 inches.

a. 9. Java. From Dr. Horsfield's Collection.

Genus SYMPHÆDRA, Hübner.

SYMPHÆDRA, Hübner, Verz. bek. Schmett. (1816).

Symphedra, E. Doubleday.

Lexias, Boisdwal, Voy. de l'Astrolabe, Ins. pt. 1. p. 125 (1832).

415. SYMPHÆDRA THYELIA, Fabricius Sp.

- Papilio Thyelia, Fabricius, Ent. Syst. III. pt. I. p. 142 (1793). Jones, Icon. V. t. 83, f. 2.
- Symphædra Thyelia, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 295, t. 42, f. 6.
- Argynnis Thyelia, Godart, Enc. Méth. IX. p. 257. Donovan, Ins. of India, t. 31, f. 3.
- Symphedra Thyelia, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 105.
- Symphædra Alcandra, Hübner, Zuträge, pt. I. p. 7, f. 1, 2, et Verz. bck. Schmett. n. 346.
- u. b. c. ♂ ♀. N. India. From the Asiatic Society of Calcutta.
- d. d. S. India. Presented by S. N. Ward, Esq.

Genus NYMPHALIS.

- Nymphalis, Latreille, Hist. Nat. des Ins. XIV. p. (1805). Godart, Enc. Méth. 1X. p. 329. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 306 (1850).
- Charaxes, Ochschheimer, Schmett. von Eur. IV. (1816). Boisduval. E. Doubleday.
- 1ASIA, Swainson, Zool. Ill. 2nd ser. t. 90 (1831-2).
- Paphia, sect. 1., Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 282, 1807). Horsfield (part).
- Eriboea et Tigridia, pt. Hübner, Verz. bek. Schmett. (1816).
- 416. NYMPHALIS FABIUS, Fabricius Sp.
 - Papilio Fabius, Fabricius, Spec. Ins. 11. p. 12 (1781); Ent. Syst. 111. pt. 1. p. 64.
 - Nymphalis Fabius, Godart, Enc. Meth. IX. p. 353. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 309, n. 28.
 - Papilio Euphanes, Esper, Ausl. Schmett. I. p. 238, t. 59, f. 1 (1785).
 - Charaxes Fabius, Boisdural. E. Doubleday, List Lcp. Brit. Mus. pt. 1. p. 110.
 - a. b. c. 3 9. N. India. Presented by Colonel Buckley.
 - d. d. N. India. Presented by Colonel Hearsey.

Colonel Hearsey informs us that "he usually captured this species upon wounded apple-trees; the butterflies frequenting the wounds to suck up the fluids which were discharged therefrom."—(Westwood's Oriental Ent.)

Captain Mortimer J. Slater, in his MS. Notes, p. 41, states: "At Dinapore, I generally found *Charaxes Fabius* near, or on, pomegranate-trees. Flies rapidly. Uncommon."

417. NYMPHALIS ATHAMAS, Drury Sp.

- Papilio Athamas, Drury, Ill. I. t. 2, f. 3, 4 (1770). Cramer, Pap. Exot. I. t. 89, f. C. D.
- Nymphalis Athamas, Godart, Enc. Méth. IX. p. 353. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 309, n. 29.
- Iasia Athama, Swainson, Zool. Ill. 2nd ser. 1. 90.
- Paphia Athamas, Horsfield, Cat. Lep. Mus. E.I.C. t. 8, f. 7, 7a.
- Charaxes Athamas, Boisduval. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 109.
- Papilio Pyrrhus, *Donovan*, *Ins. of India*, t. 29, f. 3 (1800-3).
- Eriboea Athamis, Hübner, Verz. bek. Schmett. n. 430 (1816).
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. $3 \, \circ$. N. India. Presented by Colonel Sykes.
- $g.\ h.\ \delta\ \mathfrak{P}$. N. India. Presented by Colonel Buckley.

The larva and pupa of Nymphalis Athamas are figured on Plate VI., fig. 3, 3a, from Java, discovered by Dr. Horsfield.

418. NYMPHALIS SCHREIBERI, Godart.

- Nymphalis Schreiberi, Godart, Enc. Méth. IX. App. p. 825 (1819). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 309, n. 30.
- Paphia Schreibers, Horsfield, Cat. Lep. Mus. E.I.C. t. 6, f. 3, 3a.
- Charaxes Schreiberi, Boisduval. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 110.
- a. 9. Java. From Dr. Horsfield's Collection.

419. NYMPHALIS DELPHIS, E. Doubleday Sp.

- Charaxes Delphis, E. Doubleday, Annals Soc. Ent. France (1843), p. 217, t. 7.
- Nymphalis Delphis, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 309, n. 33.
- a. 3. Silhet. Presented by the Trustees of the British Museum.

420. NYMPHALIS EUDAMIPPOS, E. Doubleday Sp.

- Charaxes Eudamippus, E. Doubleday, Annals Soc. Ent. France (1843), p. 218, t. 8.
- Nymphalis Eudamippus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 309, n. 32.
- a. b. c. ♂ ♀. Darjeeling. From Pearson's Collection.
- d. e. f. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

421. NYMPHALIS DOLON, Westwood.

- Charaxes Dolon, Westwood, Cabinet Orient. Ent. p. 55, t. 27, f. 2, 3 (1847).
- Nymphalis Dolon, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 309, n. 34.
- a. b. c. d. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

422. NYMPHALIS MARMAN, Westwood.

- 3 \(\cap \) Charaxes Marmax, Westwood, Cabinet Orient. Ent. p. 43, t. 21, f. 3, 4, 5 (1847).
 - Nymphalis Marmax, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 309, n. 37.
 - a. d. Darjeeling. From Pearson's Collection.
 - b. J. Cherra Poonjee. From Colonel Buckley's Collection.
 - c. d. e. f. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

423. NYMPHALIS BERNARDUS, Fabricius Sp.

Papilio Bernardus, Fabricius, Ent. Syst. III. pt. 1. p. 71 (1793). Donovan, Ins. of China, t. 34.

- Papilio Bernarda, Jones, Icones, IV. t. 65, f. 2 (). Nymphalis Bernardus, Westwood, in Doubleday and
- Hewitson's Diurnal Lep. p. 309, n. 35.
- Satyrus Bernardus, Godart, Enc. Méth. IX. p. 477.
- Charaxes Bernardus, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 112. Kollar, in Hügel's Kaschmir, IV. pt. II. p. 434, t. 11, f. 1, 2.
- Papilio Polyxena, Cramer, Pap. Exot. I. t. 54, f. A.B. (1779).
- Nymphalis Polyxo, Godart, Enc. Méth. IX. p. 399 (1819).
- Doxocopa Epilais, Hübner, Verz. bek. Schmett. p. 461 (1816).
- a. b. c. ♂♀. Silhet. From Colonel Buckley's Collection.
- d. e. f. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Captain Mortimer J. Slater, in his MS. Notes, p. 144, informs us that "Charaxes Bernardus flies along about four feet from the ground, sometimes rising to ten feet or so; and in this manner traverses the open ground at a fast flight, seldom settling or pausing; and is consequently very difficult to capture, much less so in perfect condition."

424. NYMPHALIS BAYA, Moore.

Nymphalis Baya, n. sp.—Allied to Nymph. Psaphon, Westwood, Cabinet Orient. Ent. t. 21, f. 1, 2, from Ceylon, but differs in the male in having the black exterior border of the fore-wing much narrower, it not extending to the middle of the posterior margin, as in that species, but is confined to the angle: on the hind-wing, the apical patch is also smaller, and continued in a series of six white centred spots to anal angle; a small blackish spot at extremity of the discoidal-cell. Under-side glossy greenish buffy-brown. Female paler above: fore-wing with a broad central yellowish band; a small round yellowish spot near the apex; a patch of black at extremity of discoidal-cell, and narrow zigzag line bordering the black band: hind-wing with the central upper portion of disc yellowish; submarginal row of spots clearly defined, and all centred with clear white. Under-side more variegated than the male, and much paler.

Tails two, short in the male; both long in the female. Expanse of male $2\frac{3}{4}$ inches, female rather more than 3 inches.

- a. b. c. ♂ ♀ (type). Java. From Dr. Horsfield's Collection.
- d. e. J. N. India. From Colonel Buckley's Collection.

The larva, pupa, and imago of Nymph. Baya are figured among the original drawings made by Mrs. Hamilton in Northern India, which are now in the possession of the Entomological Society of London. A copy of these will be drawn on a subsequent Plate of this Catalogue. Mrs. Hamilton's Notes state that the "larva was found on the 9th November, it changing to a pupa on the 20th, and the imago emerging on the 30th."

Genus KALLIMA, E. Doubleday.

Kallima, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 324 (1850).

Paphia (part), Horsfield. Hügel.

AMATHUSIA (part), Boisdural. Westwood.

Zaretis (part), Hübner.

425. KALLIMA PARALEKTA, Horsfield Sp.

- 3 Paphia Paralekta, Horsfield, Cat. Lep. Mus. E. I. C. t. 6, f. 4 (1829).
- 9 Kallima Paralekta, Westwood, in Doubleday and Hewitson's Diumal Lep. p. 325, n. 1, t. 52, f. 3.
- a. b. 3 ♀. Java. From Dr. Horsfield's Collection.

Kallima Paralekta.—Female: fore-wings hooked at the tip; the broad oblique fascia white; base of fore-wing and whole of hind-wing ferruginous-brown.

426. KALLIMA INACHIS, Boisduval Sp.

Amathusia Inachis, Boisduval, in Crochard's edit. of Cuv. Règ. Anim. Ins. t. 139, f. 3 (). Herrick-Schaffer, Lep. Exot. II. f. 7, 8.

Kallima Inachis, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 325, n. 2.

Paphia Hügelii, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 432, t. 9 (1844).

- Paphia Paralekta, apud Royle, Ill. of Himal. Bot. t. 10, f. 3a, 3b.
- Amathusia Paralekta, apud E. Doubleday, List Lep. Brit. Mus. pt. I. p. 114.
- a. b. ♂ ♀. Darjeeling. From Pearson's Collection.
- $c. d. \ 3 \$?. N. India. Presented by Colonel Buckley.
- e. f. g. & 9. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

427. KALLIMA BISALTIDE, Cramer Sp.

Papilio Bisaltide, Cramer, Pap. Exot. 11. t. 102, f. C.D. (1779). Fabricius, Ent. Syst. 111. pt. 1. p. 74.

Kallima Bisaltide, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 325, n. 8.

Apatura Bisaltide, Hübner, Verz. bek. Schmett. n. 294.

Nymphalis Bisaltide, Godart, Enc. Méth. 1X. p. 370.

Amathusia Bisaltide, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 114.

Papilio Polibetes, *Cramer*, *Pap. Exot.* **III**. *t*. 234, *f*. *D*. *E*. (1782).

Zaretis Polibetes, Hübner, Verz. bek. Schmett. n. 453.

a. b. c. d. 3 ♀. Java. From Dr. Horsfield's Collection.

e. J. Pinang. Presented by Dr. Cantor.

f. g. 3 ?. N. India. Presented by Colonel Buckley.

h. i. 3 ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus AMATHUSIA, Fabricius.

AMATHUSIA, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 279, 1807). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 326.

Mera (part), Hübner, Verz. bek. Schmett. (1816).

THORESSA, Boisduval, MS.

428. AMATHUSIA PHIDIPPUS, Linnœus Sp.

Papilio Phidippus, Linnæus, Syst. Nat. II. p. 752 (1767).
Fabricius, Ent. Syst. III. pt. 1. p. 71. Cramer, Pap. Exot. I. t. 69, f. A. B.

VOL. 1. 2 E

Amathusia Phidippus, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 279, 1807). Horsfield, Cat. Lep. Mus. E.I.C. t. 7, f. 10. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 114. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 327, n. 1, t. 54a, f. 2.

Morpho Phidippus, Godart, Enc. Méth. IX. p. 439.

Thoræssa Phidippus, Boisduval, MS.

Mæra Phidippe, Hübner, Verz. bek. Schmett. n. 477.

Var. Amathusia Patalena, Westwood, Cab. Orient. Ent. p. 40, t. 19, f. 1 (1847).

a. b. c. d. ♂♀. Java. From Dr. Horsfield's Collection.

e.f. ♂♀. Pinang. Presented by Dr. Cantor.

The larva and pupa of Amathusia Phidippus are figured on Plate VI., fig. 4, 4a, from Java, where it "feeds on the young leaves of Coccos nucifera, from December to April. Common."—(Horsfield, MS.)

429. AMATHUSIA AMYTHAON, E. Doubleday.

Amathusia Amythaon, E. Doubleday, Ann. Nat. Hist. XIX. p. 175 (1847); List Lep. Brit. Mus. App. p. 29. Westwood, Cab. of Orient. Ent. p. 29, t. 19, f. 1, 2, 3; id. in Doubleday and Hewitson's Diurnal Lep. p. 327, n. 2.

Thorassa Thessalus, Boisduval, MS.

a. 9. N. India. Donor unknown.

Genus ZEUXIDIA, Hübner.

Zeuxidia, Hübner, Samml. Exot. Schmett. II. (1806-27). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 327.

AGLAURA, Boisduval, MS. Herrich-Schaffer.

430. ZEUXIDIA LUXERI, Hübner.

Zeuxidia Luxerii, Hübner, Samml. Exot. Schmett. Band II. t. (1806-27). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 114. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 329.

a. J. Java. From Dr. Horsfield's Collection.

Genus DISCOPHORA, Boisduval.

DISCOPHOBA, Boisduval, Spéc. Gén. Lép. t. 12, f. 3 (1836). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 329.

Mœra, Zerynthia (part), Hübner.

MORPHO (part), Horsfield.

431. DISCOPHORA TULLIA, Cramer Sp.

- Papilio Tullia, Cramer, Pap. Exot. I. t. 81, f. A. B. (1779). Fabricius, Ent. Syst. III. pt. I. p. 98.
 - Discophora Tullia, E. Doubleday, List Lep. Brit. Mus. pt. I. p. 114. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 331, n. 1.

Morpho Tullia, Godart, Enc. Méth. IX. p. 446.

Mæra Tullia, Hübner, Verz. bek. Schmett. n. 479.

- a. b. c. d. ♂♀. N. India. Presented by Colonel Buckley.
- $e. \ \circ.$ N. India. Presented by Colonel Sykes.
- f. g. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

The transformations of *Discophora Tullia* are figured among the original drawings of A. Grote, Esq., of Calcutta, and are copied on Plate XII., fig. 15, 15a. It "feeds on *Bambusa*."

432. DISCOPHORA CELINDE, Stoll Sp.

Papilio Celinde, Stoll, Suppl. Cramer's Pap. Exot. V. t. 37, f. 1, 1a (1791).

Discophora Celinde, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 114. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 331, n. 2. Herr. Schaffer, Lep. Exot. 11. pt. 1 and 2, f. 5, 6 (1853).

Morpho Celinde, Godart, Enc. Méth. IX. p. 446. Horsfield, Cat. Lep. Mus. E. I. C. t. 6, f. 6, t. 7, f. 11.

Papilio Menetho, Fabricius, Ent. Syst. 111. pt. 1. p. 83 (1793). Jones, Icon. V. t. 61. Donovan, Ins. of India, t. 30, f. 1, \chi .

Morpho Menetho, Godart, Enc. Méth. 1X. p. 446.

Var. 9 ? Discophora Timora, E. Doubleday, Westwood and Hewitson's Diurnal Lep. t. 54, f. 2.

- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
- e. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

The larva and pupa of Discophora Celinde are figured on Plate VI., fig. 5, 5a, from Java, where "it feeds on the young leaves of Coccos nucifera, from December to January. Common."—(Horsfield, MS.)

Genus ENISPE, E. Doubleday.

ENISPE, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 292 (1850).

433. ENISPE EUTHYMIUS, E. Doubleday.

Adolias Euthymius, E. Doubleday, Ann. Nat. Hist. XVI. p. 179 (1845); List Lep. Brit. Mus. pt. I. App. p. 27.

Enispe Euthymius, E. Doubleday. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 292, t. 40, f. 2.

a. b. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

434. ENISPE CYCNUS, Westwood.

- Enispe Cyenus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 330 (1851).
 - a. d. Darjeeling. From Pearson's Collection.
 - b. Q. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Enispe Cycnus.—Male: Upper-side blackish-brown; base and exterior margins paler: forc-wing with an oblique band from middle of anterior margin terminating in a transverse series of lumular spots, and a parallel outer row of four quadrate spots, lilac-white: hind-wing with very indistinct marginal and submarginal pale spots. Under-side with a transverse brown dentate band from middle of costal margin to anal angle; the base of the wings orange-yellow, with narrow irregular transverse markings; exterior half of wings light brown, with indistinct transverse lines: hind-wing with a small anterior black dot and a posterior white dot. Female: Upper-side, fore-wing with the base obliquely dull chocolate-brown, the rest brownish-black; the lilac-white oblique band and spots as in male,

but larger, with two inner rows and terminal spots ochreous-yellow: hind-wing with the basal half to abdominal angle dull chocolate-brown, with a marginal, submarginal, an inner third and a short fourth row of ochreous-yellow spots, the spaces between blackish. Under-side yellow throughout, with a slight greenish tinge; transverse dentate band and markings as in male. Expanse of male $3\frac{1}{8}$, female $3\frac{1}{8}$ inches.

435. ENISPE LEPIDA, Moore.

Enispe Lepida, n. sp.— Female: Upper-side ochreous-brown, more dusky about the anterior half: fore-wing with broad oblique transverse band from middle of anterior margin, and inner row of spots, lilac-white; an outer row of submarginal and indistinct marginal spots ochreous: hind-wing with exterior margin and three inner rows of spots ochreous. Under-side pale dull dirty ochreous, with ill-defined transverse dentate line and markings about the base brown; indistinct rows of paler spots; hind-wing with an anterior brown spot centred with a white dot, and half margined with black; a posterior small white spot encircled with brown. Expanse 4 inches.

a. Q. Canara, S. India. Presented by S. N. Ward, Esq.

Genus CLEROME, Boisduval.

CLEROME, Boisdaval, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 332 (1851).

FAUNIS (part), Hühner.

436. CLEROME ARCESILAUS, Fabricius Sp.

Papilio Arcesilaus, Fabricius, Ent. Syst. 111. pt. 1. p. 153 (1793). Donovan, Ins. of India, t. 30, f. 2.

Clerome Arcesilaus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 334, t. 54, f. 5.

Satyrus Arcesilaus, Godart, Enc. Meth. IX. p. 497.

Faunis canens, Hübner, Samml. Exot. Schmett. Band 11. tab. (1806-27).

Morpho Leonteus, Zinken-Sommer, Nova Acta Acad. Nat. Cur. XV. p. 170, t. 16, f. 14, 15.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

437. CLEROME PHAON, Erichson Sp.

Drusilla Phaon, Erichson, in Nova Acta Acad. Nat. Cur. XVI. Suppl. p. 277, t. 50, f. 1, 2a (1834).

Clerome Phaon, Westwood, Trans. Ent. Soc. IV. n. s. p. .

Thaumantis Phaon, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 337, n. 4.

a. b. 3 ?. Borneo. Presented by Hugh Low, Esq.

Genus DRUSILLA, Swainson.

DRUSILLA, Swainson, Zool. Ill. 1st ser. t. 11 (1820). 'Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 334.

Hyades, Boisduval.

Tenaris (part), Hübner, Verz. bek. Schmett.

438. DRUSILLA HORSFIELDI, Swainson.

Drusilla Horsfieldii, Swainson, Zool. Ill. 1st ser. t. 11 (1820). E. Doubleday, List Lep. Brit. Mus. pt. I. App. p. 29. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 335.

Hyades Horsfieldii, Boisduval, Spéc. Gén. Lép. t. 13, f. 1 (1836).

Morpho Urania, Zinken-Sommer, Nova Acta Acad. Nat. Cur. XV. p. 167.

a. J. Java. From Dr. Horsfield's Collection.

Genus THAUMANTIS, Hübner.

Thaumantis, Hübner, Samml. Exot. Schmett. (1806-27). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 335.

Morpho (part), Godart. Horsfield. Zinken-Sommer.

439. THAUMANTIS ODANA, Godart Sp.

Morpho Odana, Godart, Enc. Méth. 1X. p. 445 (1819). Horsfield, Cat. Lep. Mus. E. I. C. t. 6, f. 5, 5a.

Thaumantis Odana, Hübner, Samml. Exot. Schmett.

Band II. tab. (1806-27). Boisduval, Spéc. Gén.

Lép. I. t. 12 (8 B), f. 1. E. Doubleday, List Lep.

Brit. Mus. pt. I. p. 115. Westwood, in Doubleday
and Hewitson's Diurnal Lep. p. 336, n. 1.

- J Morpho Klugius, Zinken-Sommer, in Nova Acta Acad. Nat. Cur. XVI. t. 15, f. 12, 13 (1834).
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

440. THAUMANTIS DIORES, E. Doubleday.

Thaumantis Diores, E. Doubleday, Ann. Nat. Hist. XVI.

- p. 234 (1845). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 337, n. 2.
- a. b. c. ♂ ♀. Cherra Poonjee. Presented by Colonel Buckley.

441. THAUMANTIS RAMDEO, Moore.

Thaumantis Ramdeo, n. sp.—Differs from Thaum. Diores in being larger, and in having the brilliant blue patch very large, it being an inch in diameter either way, and which extends over the whole of the middle of the wings. The under-side is paler than in Th. Diores, and wavy line running near the exterior margins of Diores is nearly obsolete in Th. Ramdeo; the two occlli on the hind-wing are very small. Expanse of male 4, female nearly 43 inches.

a. b. c. ♂♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

442. THAUMANTIS NOURMAHAL, Westwood.

- Thaumantis Nourmahal, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 337, n. 8 (1851); id. Trans. Ent. Soc. IV. n. s. p. , t. , f. 1.
- a. b. c. d. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

413. THAUMANTIS LUCIPOR, Westwood.

Thaumantis Lucipor, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 337, n. 5 (1851); id. Trans. Ent. Soc. IV. n. s. p. , t. , fig. 1, 3; 2, 2.

a. d. Borneo. Presented by Hugh Low, Esq.

444. THAUMANTIS NOUREDDIN, Westwood.

Thaumantis Noureddin, Westwood, in Doubleday and

Hewitson's Diurnal Lep. X. p. 337, n. 6 (1851); id. Trans. Ent. Soc. IV. n. s. p. , t. , fig. 1, \emptyset ; 2, \circ .

 $a. \ 9$. Borneo. Presented by Hugh Low, Esq.

445. THAUMANTIS CAMADEVA, Westwood.

Thaumantis Camadeva, Westwood, Cabinet of Orient. Ent. p. 9, t. 4, f. 1, 2 (1847); id. in Doubleday and Hewitson's Divrnal Lep. p. 337, n. 7, t. 55, f. 2; id. Trans. Ent. Soc. IV. n. s. p.

a. b. ♂ ♀. Darjeeling. From Pearson's Collection.

c. d. e. f. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus DEBIS, Boisduval.

Debis, Boisduval, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 358 (1851).

Lethe, Hübner, Verz. bek. Schmett. (1816).

OREAS MARMOREA (part), Hübner, Samml. Exot. Schmett.

CYLLO (part), E. Doubleday.

446. DEBIS EUROPA, Fabricius Sp.

Papilio Europa, *Fabricius*, *Syst. Ent. p.* 500 (1775); *Ent. Syst.* III. pt. 1. p. 76.

Debis Europa, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 359, n. 1.

Lethe Europa, Hübner, Verz. bek. Schmett. n. 534.

Satyrus Europa, Godart, Enc. Meth. IX. p. 478.

Oreas-Marmorea-Europa, Hübner, Samml. Exot. Schmett. Band 1. tab.

Cyllo Europa, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 120.

- § Papilio Beroe, Cramer, Pap. Exot. I. t. 79, f. C. D.
 (1779).
- 3 Papilio Arete, Cramer, Pap. Exot. IV. t. 313, f. E.F.
 - a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e.f.g.h. 3?. Purchased.

447. DEBIS NEILGHERRIENSIS, Guérin-Méneville Sp.

Satyrus (Cyllo) Neelgheriensis, Guérin-Méneville, in Delessert's Voy. dans P Inde, pt. 11. p. 74, t. 21, f. 1 (1843).

- a. d. Bootan. From Pemberton's Collection.
- b. c. $\beta \circ .$ N. India. Presented by Colonel Buckley.
- d. e. f. ♂ ♀. Darjeeling. From Messrs. Schlagint-weit's Collection.

448. DEBIS ROHRIA, Fabricius Sp.

Papilio Rohria, Fabricius, Mant. Ins. 11. p. 45 (1787); Ent. Syst. 111. 1. p. 75.

Debis Rohria, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 360, n. 4.

Satyrus Rohria, Godart, Euc. Meth. 1X. p. 479.

Satyrus Isana, Kollar, in Hügel's Kaschmir, IV. pt. 11. p. 448, tab. 16, f. 3, 4 (1844).

- a. b. c. d. 3 ?. Java. From Dr. Horsfield's Collection.
- $e.f. \ \exists \ ?$. N. India. Presented by Lieut. Hugo James.
- g. h. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

449. DEBIS VERMA, Kollar Sp.

Satyrus Verma, Kollar, in Hügel's Kaschmir, IV. pt. 11. p. 447, tab. 16, f. 1, 2 (1844).

Debis Verma, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 360, n. 5.

- a. b. ♂ ?. Bootan. From Pemberton's Collection.
- c. d. 3 ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- e. f. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

450. DEBIS BHAIRAVA, Moore.

Debis Bhairava, n. sp.—Female: Upper-side olive-brown: forewing with a transverse sharply-defined dusky line bordered with a series of small white spots, disposed obliquely from beyond the Vol. 1.

middle of anterior to near posterior margin, one-fourth from the angle; also a subapical row of four small yellow spots, parallel with exterior margin: hind-wing with four submarginal round black spots encircled with pale brown, and medially disposed from near anterior to near anal angle. Under-side luteous-brown: fore-wing with two transverse ferruginous-brown lines, the inner one bifid across discoidal-cell, the outer straight, and bordered by the white spots; a submarginal row of four pale occili, also an anterior terminal yellow spot: hind-wing with two transverse ferruginous-brown lines and a submarginal row of six occili; a narrow dark marginal line to both wings. Expanse $2\frac{n}{8}$ inches.

a. 9. Darjeeling. From Messrs. Schlagintweit's Collection.

451. DEBIS SCANDA, Moore.

Debis Scanda, n. sp.—Male: UPPER-SIDE blackish, glossed with blue; along the margins pale purplish-blue: hind-wing with indistinct submarginal black spots. UNDER-SIDE deep ferruginous-brown: forc-wing with a transverse paler band across discoidal-cell, and another across the disc; a submarginal row of pale ocelli: hind-wing with two transverse darker lines, and a submarginal series of six, and a geninated seventh ocellus; margins pale, with a narrow darker line. Expanse 2; inches.

a. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

452. DEBIS NADA, Moore.

Debis Nada, n. sp.—Female: UPPER-SIDE dark brown: fore-wing with two indistinct yellowish subapical marks: hind-wing with row of four small black submarginal spots. UNDER-SIDE deep bright ferruginous: fore-wing with transverse band across discoidal-cell, and another across the disc, yellowish; a submarginal row of pale ocelli: hind-wing with two transverse darker lines and a row of submarginal ocelli; margins pale, with a darker narrow line; ciliæ white. Expanse 25 inches.

a. ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—This may possibly be only the female of the preceding species.

453. DEBIS ARCADIA, Cramer Sp.

Papilio Arcadia, Cramer, Pap. Exot. II. t. 116, f. E.F.
(1779).

Debis Arcadia, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 359, n. 2.

Temenis Arcadia, Hübner, Verz. bek. Schmett. n. 279.

Satyrus Caumas, Godart, Enc. Meth. 1X. p. 479, n. 7.

a. b. J. Java. From Dr. Horsfield's Collection.

454. DEBIS MEKARA, Moore.

Debis Mekara, n. sp.—Male: Upper-side glossy olive-brown: hind-wing with four round spots encircled with red. Under-side with two transverse lines: fore-wing with five submarginal pale ocelli: hind-wing with six brown ocelli, encircled by a yellow and then a black line, the centre being minutely spangled with white. Expanse $2\frac{\pi}{6}$ inches.

- a. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- b. c. d. Darjeeling. From Messrs. Schlagintweit's Collection.

455. DEBIS CHANDICA, Moore.

Debis Chandica, n. sp.—Male: UPPER-SIDE dark brown, about the disc blackish: hind-wing with indistinct submarginal spots. Under-SIDE: fore-wing pale drab-brown, and having a purple tinge; along costal margin, and broadly on exterior margin, yellowish; transverse red line crossing from middle of discoidal-cell, and another irregular brown line across the disc; five pale ocelli; straight marginal and wavy submarginal line: hind-wing drab-brown; two irregular zigzag transverse lines, anteriorly within yellowish, posteriorly ferruginousbrown; six ocelli encircled with a yellow and brown line, the three anterior, and last posterior, black, the other two drab, all minutely spangled with white; exterior margin yellowish; marginal line, and submarginal row of ill-defined lunular marks, ferruginous-brown. Female: UPPER-SIDE: fore-wing with the basal half obliquely brownish-red, anterior half brown, with a band obliquely from middle of costal margin, terminated by two spots, white: also a small white subapical spot: hind-wing brownish-red, anterior angle and along exterior margin yellowish; a submarginal row of indistinct spots and marginal line black. UNDER-SIDE as in male, excepting that the oblique band of fore-wing is more distinct. Expanse of male $2\frac{1}{2}$, female $2\frac{5}{8}$ inches.

- a. b. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- c. 9. Darjeeling. From Messrs. Schlagintweit's Collection.
- d. d. Java. From Mr. Argent's Collection.

456. DEBIS KANSA, Moore.

Debis Kansa, n. sp.—Male: Upper-side glossy olive-brown; hind-wing with caudal appendage somewhat long; marginal row of blackish spots indistinct. Under-side drab, with two transverse dark lines; fore-wing with four pale occili: hind-wing with six small black occili, encircled by a yellow, brown, and then a lavender-coloured line, the sixth minute and geminated. Female: Upper-side dark brown: fore-wing with darker line across the disc: hind-wing with five large black spots, narrowly encircled with red, from anterior angle. Under-side brown, darkest within the outer transverse line; the inner line within, about the apex of fore-wing, glossed with lavender-colour; occili pale: hind-wing with the anterior first and fifth occilus large, that at the anal angle geminated, all encircled with a glossy lavender band. Expanse 2% inches.

a. b. 3 ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus ZOPHOESSA, Doubleday.

ZOPROESSA, E. Doubleday. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 362 (1851).

457. ZOPHOESSA SURA, E. Doubleday.

Zophoessa Sura, E. Doubleday, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 362, t. 61, fig. 1 (1851).

- a. J. Bootan. From Pemberton's Collection.
- b. c. d. Darjeeling. From Pearson's Collection.
- d. J. N. India. Presented by Lieut. Hugo James.
- e. J. Darjeeling. From Messrs. Schlagintweit's Collection.

458. ZOPHOESSA YAMA, Moore.

Zophoessa Yama, n. sp.—Differs from Zoph. Sura in having no caudal appendage to the hind-wing; the under-side having on the fore-wing three pale bands crossing the discoidal-cell, and four submarginal ocelli: the hind-wing having the basal portion irrorated with minute pale dots, the transverse streaks more oblique, and the ocelli, seven in number, are black, encircled with a pale and then a dark line, centred with a minute white dot, that at the anal angle being, as it were, geminated; cilie seen from upper-side yellowish-white. Sexes alike. Expanse 3 inches.

a. b. ♂. Bootan. From Pemberton's Collection.
c. ♀. N. India. Presented by Colonel Buckley.

Genus CYLLO, Boisdural.

Cyllo, Boisdwal, Voy. de l'Astrolabe, Entom. pt. I. p. 140 (1832). Hipio, pt. Hübner, Verz. bek. Schnett. (1816). Oreas, pt. Hübner.

Cyllo, pt. E. Doubleday. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 360.

159. CYLLO CONSTANTIA, Cramer Sp.

Papilio Constantia, Cramer, Pap. Exot. II. t. 133, f. A.B. (1779).

Cyllo Constantia, Boisduval, Voy. de l'Astrolabe, Ent. pt. I. p. 141. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 120. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 361, n. 5.

Hipio Constantia, Hübner, Verz. bek. Schmett. n. 537. Satyrus Constantia, Godart, Enc. Mith. IX. p. 477.

a. 3. N. India. Purchased.

b. c. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

160. CYLLO CRISHNA, Westwood.

Cyllo Crishna, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 361, n. 9 (1851).

a. Java. From Mr. Argent's Collection.

Genus MELANITIS, Fabricius.

MELANITIS, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 282, 1807). Hipio, pt. Hübner, Verz. bek. Schmett.

CYLLO, pt. Boisduval. E. Doubleday. Westwood (Diurnal Lep.).

461. MELANITIS LEDA, Linnæus Sp.

- Papilio Leda, Linnæus, Syst. Nat. II. p. 773 (1767).

 Fabricius, Syst. Ent. III. pt. I. p. 108. Cramer,
 Pap. Exot. IV. t. 196, f. C.D.; 292, f. A. Drury,
 Ill. Ent. I. t. 15, f. 5, 6.
- Melanitis Leda, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 282).
- 3 Oreas-Marmorea-Leda, Hübner, Samml. Exot. Schmett. Band I. tab.
 - Satyrus Leda, Godart, Enc. Mcth. IX. p. 478.
 - Hipparchia Leda, Horsfield, Cat. Lep. Mus. E.I.C. t. 8, f. 9.
 - Cyllo Leda, Boisduval, Voy. de l'Astrolabe, Ent. pt. I. p. 142. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 121. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 361, n. 1.
 - Papilio Solandra, Fabricius, Syst. Ent. p. 500. Donovan, Ins. of New Holland, t. 23, f. 1.
 - a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. o o . Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- g. J. Borneo. Presented by Edwin Shepherd, Esq., 1857.

The larva and pupa of *Melanitis Leda* are figured on Plate VI., fig. 8, 8a, from Java.

462. MELANITIS BANKSIA, Fabricius Sp.

- Papilio Banksia, Fabricius, Syst. Ent. p. 499 (1775).

 Donovan, Ins. of New Holland, t. 25, f. 1.
- Hipio Leda, Hübner, Verz. bek. Schmett. n. 538.
- Satyrus Banksia, Godart, Enc. Méth. IX. p. 477.
 Cyllo Banksia, E. Doubleday, List Lep. Brit. Mus. pt. 1.

- p. 121. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 361, n. 8.
- Papilio Ismene, Cramer, Pap. Exot. I. t. 26, f. A.B. (1779).
- Papilio Mycena, Cramer, Pap. Exot. IV. t. 291, f. F. (1782).
- Papilio Phedima, Cramer, Pap. Exot. IV. t. 292, f. B.
- Papilio Arcensia, Cramer, Pap. Exot. IV. t. 292, f. C.
- a. b. c. d. e. ♂ ♀. Java. From Dr. Horsfield's Collection.
- f. y. 3 ?. N. India. From the Asiatic Society of Bengal.
- h. . Darjeeling. From Pearson's Collection.
- i. N. India. Presented by Colonel Sykes.

463. MELANITIS VAMANA, Moore.

Melanitis Vamana, n. sp.—Differs from Melanitis Banksia in being larger, the subapical ferruginous patch on fore-wing occupying a larger space, the deep-black patch extends to the costal vein, the upper white spots smaller, the lower being very indistinct; two white dots on hind-wing. Under-side marked as in some specimens of Melanitis Banksia. Expanse 3½ inches.

- a. b. 3 9. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- c. d. N. India. Presented by Colonel Sykes.

464. MELANITIS AMBASARA, Moore.

Melanitis Ambasara, n. sp.—UPPER-SIDE brown, having an olive gloss: fore-wing with an ill-defined oblique ochreous streak, bounded anteriorly on both sides with dusky-black; the streak with two small indistinct spots: hind-wing with very white spots. Under-side marked as in some specimens of Melanitis Banksia. Expanse 3, inches.

- a. d. Java. From Dr. Horsfield's Collection.
- b. 9. Java. From Mr. Argent's Collection.

465. MELANITIS BELA, Moore.

Melanitis Bela, n. sp.—UPPER-SIDE deep dusky-brown: fore-wing with small indistinct ferruginous streak, below which the space is

blackish; the two usual white spots: hind-wing with one minute white dot. UNDER-SIDE deep mottled ferruginous-brown: triangular patch near apex of fore-wing paler: hind-wing with six spots. Expanse $2\frac{\pi}{k}$ inches.

- a. J. N. India. Presented by Licutenant Hugo James.
- b. d. Assam. From McClelland's Collection.
- c. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

466. MELANITIS SUYUDANA, Moore.

Mclanitis Suyudana, n. sp.—Upper-side deep dark-brown, paler on the margins: a single whitish spot near apex of fore-wing, and a minute dot on hind-wing. Under-side deep mottled ferruginous-brown, with indistinct darker usually transverse streaks; a triangular space of mottled greyish-white from costal margin near the apex: hind-wing with six small pale spots centred with a white dot. Expanse 22 inches.

a. b. c. ♂♀. Java. From Dr. Horsfield's Collection.

467. MELANITIS VARAHA, Moore.

Melanitis Varaha, n. sp.—Upper-side dusky-brown, ashy-brown along exterior margins; subapical patch indistinctly black, with two white spots. Under-side ashy, tinged with olive from the base to the middle of wing: near apex of fore-wing two small brown dots: hind-wing with submarginal row of indistinct paler spots. Expanse 2 inches.

a. d. Canara. Presented by S. N. Ward, Esq.

468. MELANITIS GOKALA, Moore.

Melanitis Gokala, n. sp.—UPPER-SIDE brown, suffused with ashy about the apex and exterior margins; an indistinct blackish subapical patch (without spots). UNDER-SIDE glossy olive-brown, washed on the basal two-thirds with pulverulescent ashy-white; a small white dot on lower disco-cellular vein, and another near anal angle of hind-wing. Expanse 3 inches.

a. d. Canara, S. India. Presented by S. N. Ward, Esq.

469. MELANITIS SURADEVA, Moore.

Melanitis Suradera, n. sp.—Male: Upper-side deep vinaceous-brown, darkest at the apex, and having in some lights a purple gloss: fore-wing with a large black patch in middle; a short narrow obliquely-curved yellow subapical streak. Under-side dull-ochreous, suffused with brown, and covered with short, narrow, undulating striw, as in Melanitis Leda; a transverse darker streak across middle of both wings; four small whitish submarginal spots on fore-wing, and two near anal angle. Expanse 3 inches.

a. J. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus CŒLITES, Boisdural.

Collites, Boisdwal, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 367.

170. CELITES EPIMINTHIA, Boisdural.

Calites Epiminthia, Boisdaval, MS. Westwood, in Doubleday and Heartson's Diagnal Lep. p. 368 (1851).

a. d. Borneo. Presented by Hugh Low, Esq.

Genus ORINOMA, E. Doubleday.

Omnoma, E. Doubleday, in Gray's Lep. of Nepal, p. 14 (1846). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 368.

471. ORINOMA DAMARIS, G. R. Gray Sp.

Pieris Damaris, G. R. Gray, Lep. of Nepal (1833).

Orinoma Damaris, E. Doubleday, in Gray's Lep. of Nepal, p. 14, t. 7, f 2, 2a. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 369, t. 63, f. 3.

Satyrus Damaris, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 122.

a.b.c. 3. Silhet. From Colonel Buckley's Collection.

d. 2. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus NEORINA, Westwood.

Neorina, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 369 (1851).

VOL. 1. 2 G

472. NEORINA HILDA, Westwood.

Neorina Hilda, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 370, t. 65, f. 2 (1851).

- a. b. c. d. o ♀. Darjeeling. From Pearson's Collection.
- e. f. 3 ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus RAGADIA, Westwood.

NEONYMPHA (RAGADIA), Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 376 (1851).

473. RAGADIA MAKUTA, Horsfield Sp.

Hipparchia Makuta, Horsfield, Cat. Lep. Mus. E. I. C. t. 5, f. 9, 9a (1829).

Euptychia Crisia, Hübner, Zuträge, f. 675, 676 (1832-7).

Neonympha (Ragadia) Crisia, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 376, n. 26.

a. b. J. Java. From Dr. Horsfield's Collection.

 $c.\ \mathcal{J}$. Java. From Mr. Argent's Collection.

Genus EREBIA, Dalman.

EREBIA, p. Dalman, P. S. p. 81 (1816).

EPIGEA, MELAMPIAS, Hübner, Verz. bek. Schmett. (1816).

OREINA, Westwood, Brit. Butt. p. 76 (1840).

Erebia, Boisduval. Herr.-Schaffer. E. Doubleday. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 376.

474. EREBIA SCANDA, Kollar.

Erebia Scanda, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 452, t. 17, f. 3, 4 (1844).

- a. d. N. India. Presented by Colonel Buckley.
- b. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

475. EREBIA ANNADA, Moore.

Erebia Annada, n. sp.—Differs from Erebia Scanda in being larger, and in having the anal angle more falcated. On the under-side, the

fore-wing is of a bright ferruginous: the hind-wing is mottled with white nearly throughout, and from near anal angle, below the ocelli, extends a curved white line. Expanse 2½ inches.

a. b. c. ♂ ♀. Bootan. From Pemberton's Collection.

Genus LASIOMMATA, Westwood.

LASIOMMATA, Westwood, Brit. Butt. p. 65 (1840); id. Diurnal Lep. p. 385.

DIRA, PARARGE, EPINEPHILE, pt. Hübner.

476. LASIOMMATA SCHAKRA, Kollar Sp.

Satyrus Schakra, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 446, t. 15, f. 3, 4 (1844).

Lasiommata Schakra, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 387, n. 12.

a. b. d. N. India. Presented by Colonel Hearsey.

 $c. d. \beta ?$. N. India. Presented by Colonel Buckley.

e. f. 3 \cong . Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

477. LASIOMMATA? PULAIIA, Moore.

Lasionmata? Pulaha, n. sp.—UPPER-SIDE chocolate-brown, dusky about the apex and margins: fore-wing, with the veins at the base, a stripe at extremity of discoidal-cell, and two transverse series of spots, ochreous-yellow: hind-wing with two rows of ochreous-yellow spots; ciliæ spotted with yellowish-white. UNDER-SIDE dark brown: fore-wing with three bars across the discoidal-cell and subapical spots tinged with white; lower series of spots and space below the cell yellow: hind-wing with submarginal row of eight ocelli and a single ocellus at abdominal angle; an irregular dark-brown band from middle of anterior to middle of abdominal margin; markings about anterior margin tinged with white. Expanse 2% inches.

a. d. Bootan. From Pemberton's Collection.

Remark.—This species is somewhat allied in form to Las. Merope.

478. LASIOMMATA? BHADRA, Moore.

Lasionmata? Bhadra, n. sp.—UPPER-SIDE blackish-brown, suffused with chocolate-brown at the base of fore-wing and along abdominal margin: fore-wing with two transverse bars within discoidal-cell and

two rows of spots across the wing yellowish, the lower inner spot being long: hind-wing with two rows of irregular-shaped spots, and small space about extremity of discoidal-cell deep ochreous-yellow, the last spot on each row near anal angle encircling a spot of black. Under-side dark brown, tinged in parts with pink: fore-wing with markings as above; also with a subapical eye-spot: hind-wing with a series of seven occili and a smaller spot at abdominal angle; base of the wing varied with pale ochreous-white and dark-brown markings. Expanse 3½ inches.

a. b. c. d. g. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Remark.—The two preceding species may be generically separated from LASIOMMATA, under the name of ENOPE, Moore.

Genus XENICA, Westwood.

Lasiommata (Xenica), Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 387.

479. XENICA ACHANTA, Donovan Sp.

Papilio Achanta, Donovan, Ins. of New Holland, t. 22, f. 2 (1805).

Lasionmata (Xeniea) Achanta, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 387, n. 22.

Satyrus Achanta, Godart, Enc. Méth. IX. p. 500. Boisdwal, Voy. de l'Astrolabe, Ent. pt. I. p. 147.

Tisiphone Acanthe, Hübner, Zuträge, f. 267, 268 (1818).

a. 3. Sumatra? From Raffles's Collection.

Genus SATYRUS, Latreille.

SATYRUS, pt. Latreille.

HIPPARCHIA, pt. Fabricius.

Hipparchia, Minois, Eumenis, (Eneis, Pyronia, Epinephile, Tisiphone, et Enodia, pt. Hübner.

480. S. TYRUS PADMA, Kollar.

Satyrus Padma, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 445, t. 15, f. 1, 2.

a. S. N. India. Presented by Edwin Shepherd, Esq.

481. SATYRUS AVATARA, Moore.

Satyrus Avatara, n. sp.—Differs from Sat. Padma in having the transverse maculated band much narrower, and there being no spots running obliquely to costal margin. It is less in size than Pat. Padma, but larger than Satyrus Swaha and Saraswati. Expanse 3.20 inches.

a. b. d. N. India. Presented by Colonel Buckley.

482. SATYRUS SWAHA, Kollar.

Satyrus Swaha, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 444, t. 14, f. 1, 2 (1844). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 390, n. 18.

u. d. N. India. From the Asiatic Society of Bengal.

b. c. 3. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

483. SATYRUS SARASWATI, Kollar.

Satyrus Saraswati, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 415 (March, 1844). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 390, n. 19.

3 Satyrus Brahminus, Blanchard, in Jacquemont's Voy. dans l'Inde, Ins. p. 22, t. 2, f. 4, 5, 6 (1844). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 390, n. 16.

Satyrus Jacquemontii, Boisduval, MS.

 $a. b. \ 3 \ ?$. N. W. India. Presented by Col. Hearsey.

Genus ERITES, Boisdural.

ERITES, Boisduval, MS.

Saturus (Erites), Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 392 (1851).

484. ERITES MADURA, Horsfield Sp.

Hipparchia Madura, *Horsfield*, Cet. Lep. Mus. E.I.C. t. 5, f. 8, 8a (1829).

Satyrus (Erites) Madura, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 392.

Erites Medura, Boisdaval, MS.

a. ?. Java. From Dr. Horsfield's Collection.

Genus MYCALESIS, Hübner. .

MYCALESIS, Hübner, Verz. bek. Schmett. (1816). E. Doubleday, List Lep. Brit. Mus. p. 138. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 392.

485. MYCALESIS POLYDECTA, Fabricius Sp.

Papilio Polydecta, Fabricius, Spec. Ins. II. p. 85 (1781); Ent. Syst. III. pt. I. p. 107. Cramer, Pap. Exot. II. t. 144, f. E.F.

Mycalesis Polydecta, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 391, n. 1.

Satyrus Polydecta, Godart, Enc. Méth. IX. p. 511.

a. d. China. Presented by Dr. Cantor.

486. MYCALESIS OTREA, Cramer Sp.

Papilio Otrea, Cramer, Pap. Exot. IV. t. 314, f. A.B. (1782).

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

e. f. d. N. India. From the Asiatic Society of Bengal.

y. h. & S. Bootan. From Pemberton's Collection.

487. MYCALESIS FRANCISCA, Cramer Sp.

Papilio Francisca, Cramer, Pap. Exot. IV. t. 326, f. E.F. (1782).

a. d. Assam. From McClelland's Collection.

b. c. d. Canara. Presented by S. N. Ward, Esq.

488. MYCALESIS VISALA, Moore.

Mycalesis Visala, n. sp.—This species is larger than the preceding, and has the apex of the fore-wing sharply angulated. The under-side has two transverse lines across both wings, the outer line across the middle, the inner towards the base, of the wing; the row of dots minute, white, the third from anal angle being black. Expanse 21 inches.

- a. J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- b. 9. Bootan. From Pemberton's Collection.
- c. 9. N. India. Presented by Colonel Buckley.

489. MYCALESIS SANATANA, Moore.

Mycalesis Sanatana, n. sp.—UPPER-SIDE brown: fore-wing with a large lower, and a smaller upper eye-spot, the latter with a minute one above and below it. UNDER-SIDE ochreous-brown; the series of spots white. Expanse 2 inches.

a. 3. Darjeeling. From Messrs. Schlagintweit's Collection.

490. MYCALESIS MAMERTA, Cramer Sp.

Papilio Mamerta, Cramer, Pap. Exot. IV. t. 326, f. D. (1782).

a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.

491. MYCALESIS DRUSIA, Cramer Sp.

Papilio Drusia, Cramer, Pap. Exot. 1. t. 84, f. C.D. (1779).

Var. Papilio Justinia, Cramer, Pap. Exot. IV. t. 326, f. C.
Papilio Mineus, Linnaus, Syst. Nat. 11, p. 768.

- a. b. c. d. ♂♀. Java. From Dr. Horsfield's Collection.
- e. f. g. \eth \circ . N. India. Presented by Colonel Sykes.
- h. ?. Darjeeling. From Messrs. Schlagintweit's Collection.
- i. d. (Justinia, Cramer.) N. India.

492. MYCALESIS MALSARA, Moore.

Mycalesis Malsara, n. sp.—Utper-side dark brown: fore-wing with a transverse brownish-white band, and upper and lower ocelli: hind-wing with very indistinct transverse brownish-white streak, and two small ocelli. Under-side with transverse yellowish-white band well defined across both wings: fore-wing with five ocelli, the first and third minute: hind-wing with seven larger ocelli, the third and seventh smallest. Expanse 2¹ inches.

a. b. d. Darjeeling. From Messrs. Schlagintweit's Collection.

493. MYCALESIS GOTAMA, Moore.

Mycalesis Gotama, n. sp.—UPPER-SIDE pale brown: fore-wing with upper and lower ocelli: hind-wing with a minute ocellus. UNDER-SIDE pale greyish-brown: fore-wing with transverse yellowish-white band, and the two ocelli as above: hind-wing with transverse yellowish-white band; three ocelli from anterior margin near angle, the two lower very small; and three near anal angle, the two lower also very small. Sexes alike. Expanse, 3 15, 2 2 inches.

a. b. 3 9. China. Presented by Dr. Cantor.

494. MYCALESIS PATNIA, Moore.

Mycalesis Patnia, n. sp.—UPPER-SIDE ochreous-brown: fore-wing with a lower black spot, centred with white, and broadly bordered on the upper half (but not on the lower) with pale ochreous; a streak from thence to base pale ochreous; near apex a small longitudinal white spot; two narrow marginal lines to both wings. UNDER-SIDE ochreous-yellow: fore-wing with the upper longitudinal white spot; also the large lower ocellus, the lower border of which is suffused with black; five transverse lines commencing from base, and circle round the upper spot and lower ocellus, ochreous-red; a silvery line aeross the middle of wing and round the ochreous-red circle: hind-wing with single upper and two lower white spots, distantly encircled with a black line, around this and two transverse basal lines ochreous-red; a transverse line across middle of wing, and round the outer circle of the ocelli, silvery. Sexes alike. Expanse 1; to 1; inches.

a. b. 3 ?. Ceylon. From M. Jonville's Collection.

495. MYCALESIS ANAPITA, Moore.

Mycalesis Anapita, n. sp.—Upper-side ochreous-red: fore-wing with the costal, exterior, and to middle of posterior margin, dark brown; a small lower black spot centred with white and encircled with red: hind-wing with two narrow marginal and broader submarginal lines dark brown, with three lower ocelli. Under-side yellow, with two ochreous-red transverse lines crossing middle of both wings and bordering the ocelli on both wings; marginal lines narrow, black. Expanse 1, inches.

a. d. ? Sumatra. ? From Raffles's Collection.

Remark.—This species is closely allied to Myc. Remulia, Cramer, t. 237, f. F. G.

496. MYCALESIS HERI, Moore.

Mycalesis Heri, n. sp.—UPPER-SIDE brown: fore-wing with large upper and larger lower ocellus: hind-wing with two larger and third smaller ocelli. UNDER-SIDE paler, the base covered with short brown undulated striæ; transverse line, inner and outer border to the ocelli pale ochreous: fore-wing with the two ocelli as above: hind-wing with six ocelli; marginal lines brown and pale ochreous. Expanse 2s inches.

a. b. c. 3. Bootan. From Pemberton's Collection.

497. MYCALESIS SAFITZA, Hewitson.

Mycalesis Safitza, Hewitson, MS. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 394, n. 10, t. 66, f. 3 (1851).

 a. J. Africa. Presented by Edwin Shepherd, Esq., 1857.

498. MYCALESIS SAMBA, Moore.

Mycalesis Samba, n. sp.—UPPER-SIDE dark brown, exterior margins paler; narrow marginal line black. Under-side with transverse white line: fore-wing with two occili: hind-wing with seven occili, the anterior second and third very small; exterior margins pale, with narrow marginal lines. Expanse 13 inch.

a. d. N. India. Donor unknown.

Remark.—This species is somewhat allied to Myc. Hesione, from which it may be distinguished by having seven occili instead of three on the under-side of the hind-wing.

499. MYCALESIS MANDATA, Moore.

Mycalesis Mandata, n. sp.—Upper-side brown, with transverse band of under-side indistinctly seen through the wing. Under-side with broad transverse very white band crossing both wings; forewing with two small ocelli: hind-wing with three ocelli, the anterior being small, and all encircled with a silvery line. Expanse 1½ inch.

a. d. Canara. Presented by S. N. Ward, Esq.

Remark.—Differs from Myc. Hesione on the under-side in having the transverse band three times the width that it is in that species.

VOL. 1. 2 H

500. MYCALESIS HESIONE, Cramer Sp.

Papilio Hesione, Cramer, Pap. Exot. I. t. 11, f. C.D. (1779). Fabricius, Ent. Syst. III. pt. I. p. 100.

Mycalesis Hesione, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 139. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 393, n. 4.

Satyrus Hesione, Godart, Enc. Méth. IX. p. 510. Boisduval, Voy. de l'Astrolabe, Ent. pt. I. p. 154.

Papilio Doris, Cramer, Pap. Exot. 1V. t. 362, f. C.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

g. J. N. India. Presented by Colonel Sykes.

501. MYCALESIS RUNEKA, Moore.

Mycalesis Runeka, n. sp.-- UPPER-SIDE uniform dark brown. UNDER-SIDE dark brown, paler along the exterior margins; a transverse yellowish-white band crossing both wings: fore-wing with two, and hind-wing with three, pale-brown ocelli.

a. b. c. d. 3 \cong . Assam. From McClelland's Collection.

502. MYCALESIS JANARDANA, Moore.

Mycalesis Janardana, n. sp.—Male: Upper-side dusky-brown, palest on the hind-wing, which has two rather indistinct black spots. Under-side brown, the basal parts being covered with small narrow strine; two transverse lines, the outer margined exteriorly with white: fore-wing with six and hind-wing with seven small ocelli. Female paler on the Upper and Under-side, the latter nearly covered with small dark strine; the transverse lines paler; the ocelli somewhat larger than in male. Expanse of $\delta 1_{\frac{1}{4}}$; $\mathfrak{P} 1_{\frac{1}{4}}$ inch.

a. b. c. o g. Java. From Dr. Horsfield's Collection.

503. MYCALESIS? HIMACHALA, Moore.

Mycalesis? Himachala, n. sp.—UPPER-SIDE deep brown, paler broadly along exterior margins: fore-wing with six and hind-wing with five ocelli; marginal line deep brown. UNDER-SIDE as above, but the hind-wing with six ocelli, the anterior ocellus large, and the posterior with two white dots. Expanse 23 to 3 inches.

a. b. c. d. e. f. & \copp. Darjeeling. From Messrs. Schlagintweit's Collection.

This species may be separated under the generic name of THEOPE, Moore.

Genus YPHTHIMA, Hübner.

- YPHTHIMA, Hübner, Zuträge, f. 83 (1818). E. Doubleday. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 394.
- 504. YPHTHIMA LYSANDRA, Cramer Sp.
 - Papilio Lysandra, Cramer, Pap. Exot. IV. t. 293, f. G. II. (1782).
 - Papilio Baldus, Fabricius, Mant. Ins. 11. p. 34 (1787);
 Ent. Syst. 111. pt. 1. p. 323. Donovan, Ins. of India, t. 36, f. 2.
 - Yphthima Baldus, E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 139. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 395.
 - Satyrus Baldus, Godart, Enc. Meth. IX. p. 551.
 - u. b. c. d. e. f. ♂ ♀ . Java. From Dr. Horsfield's Collection.
 - g. h. i. j. δ γ. Darjeeling. From Messrs. Schlagintweit's Collection.

505. YPHTHIMA PHILOMELA, Hübner,

- Yphthima Philomela, Hübner, Zuträge, f. 83, 84 (1818). E. Doubleday, List Lep. Brit. Mus. pt. I. p. 138. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 395, n. 3.
- Satyrus Chenu, Guérin-Méneville, in Delessert's Souv. Voy. Ind. p. 77, t. 21, f. 2 (1843).
- Yphthima Chenu, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 396, n. 9.
- a. d. N. India. From the Asiatic Society of Bengal.

506. YPHTHIMA PANDOCUS, Boisduval MS.

Yphthima Pandocus, n. sp.—UPPER-SIDE as in Yph. Lysandra, but with only two occili on hind-wing, the lower occilius being at anal angle and very small. UNDER-SIDE with the hind-wing having only two occili. Expanse of $3 1\frac{1}{4}$; $2 1\frac{3}{4}$ inch.

- a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.
- g. h. d. N. India? From the Asiatic Society of Bengal.

507. YPHTHIMA HYAGRIVA, Moore.

Yphthima Hyagriva, n. sp.—UPPER-SIDE with only two ocelli, one being at apex of fore-wing, the other on hind-wing near anal angle. UNDER-SIDE yellowish: hind-wing covered with short narrow undulated striæ, with two anterior and two posterior ocelli; a marginal line and submarginal streak blackish. Expanse 1½ inch.

J. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

508. YPHTHIMA SAKRA, Moore.

Yphthima Sakra, n. sp.—UPPER-SIDE with five occili, one being on fore-wing, three near anal angle, and one (but indistinct) near anterior angle of hind-wing. UNDER-SIDE yellow, covered with short narrow dark-brown strike: hind-wing with geminated anterior, and three single posterior occili. Expanse 2 inches.

- a. b. c. d. g q. Darjeeling. From Pearson's Collection.
- e.f. d. Bootan. From Pemberton's Collection.
- y. h. ♂♀. Darjeeling. From Messrs. Schlagintweit's Collection.

509. YPHTHIMA NARASINGHA, Moore.

Tphthima Narasingha, n. sp.—Upper-side with only one occllus on fore-wing. Under-side greenish-grey, covered with short undulated darker striæ; the one occllus on fore-wing only, beneath which are two descending dark lines to posterior margin. Expanse 2 inches.

a. b. c. ♂♀. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus ELYMNIAS, Hübner.

Elymnias, Hübner, Verz. bek. Schmett. (1816).

Melanitis, pt. Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 282).

MELANITIS, Horsfield. Boisduval. E. Doubleday. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 403.

BIBLIS, pt. Godart.

510. ELYMNIAS LAIS, Fabricius Sp.

- Papilio Lais, Fabricius, Spec. Ins. II. p. 102 (1781); Ent. Syst. 111. pt. 1. p. 58. Cramer, Pap. Exot. 11. t. 110, f. A.B. (1779).
- Elymnias Lais, Hübner, Verz. bek. Schmett. n. 326.
- Biblis Lais, Godart, Enc. Mcth. IX. p. 326.
- Melanitis Lais, Boisdural. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 143. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 404, n. 1.
- a. b. c. d. β γ. Java. From Dr. Horsfield's Collection.

511. ELYMNIAS UNDULARIS, Fabricius Sp.

- Papilio undularis, Fabricius, Spec. Ins. App. p. 504
 (1781); Ent. Syst. III. pt. 1. p. 127. Drury,
 Ill. Exot. Ins. II. t. 10, f. 1, 2. Cramer, Pap.
 Exot. III. t. 256, f. A.B.
 - Biblis undularis, Godart, Enc. Meth. IX. p. 326.
 - Melanitis undularis, Horsfield, Cat. Lep. Mus. E. I.C. t. 3, f. 24, t. 8, f. 8. E. Doubleday, List Lep. Brit. Mus. pt. I. p. 144. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 404, n. 2.
- Papilio Protogenia, Cramer, Pap. Exot. II. t. 189, f. F.G. Fabricius, Ent. Syst. III. pt. I. p. 117.
 - Elymnias Protogenia, Hübner, Verz. bek. Schmett. n. 323.
 - Biblis Protogenia, Godart, Enc. Méth. IX. p. 327.
- 3 Elymnias Jynx, Hübner, Zuträge, f. 37, 38.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. d ?. N. India. Presented by Colonel Sykes.
- g. h. i. j. k. $\eth \circ var$. N. India. Presented by Colonel Buckley.
- l. & var. Borneo. Presented by Edwin Shepherd, Esq.

The larva and pupa of Elymnias undularis are figured on Plate VI., fig. 7, 7a, from Java. "Feeds on the Gobbang (Corypha umbraculifera). May."—(Horsfield, MS.)

512. ELYMNIAS DUSARA, Horsfield Sp.

- Melanitis Dusara, Horsfield, Cat. Lep. Mus. E.I.C. t. 5, f. 7 (1829). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 405, n. 5.
- a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.
- g. & var. Borneo. 'Presented by Hugh Low, Esq.

513. ELYMNIAS VASUDEVA, Moore.

Elymnias Vasudeva, n. sp.—Male: Upper-side, fore-wing black, glossed with slaty-blue; costal margin with small bluish-white dots; longitudinal spots in middle of wing, and spots from near apex to posterior angle bluish-white: hind-wing, from abdominal margin to middle of wing, white, anterior and posterior border black, the latter with some marginal white spots. Under-side white, veins black: fore-wing covered throughout with deep-black striæ: hind-wing with exterior margin covered with deep-black striæ; base of wing black, with numerous small white spots, and a large red spot below the cell; abdominal margin broadly suffused with yellow. Expanse 27 inches.

a. &. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

514. ELYMNIAS PATNA, Westwood Sp.

Melanitis Patna, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 405, n. 6, t. 68, f. 2 (1851).

a. J. Darjeeling. From Messrs. Schlagintweit's Collection.

515. ELYMNIAS LEUCOCYMA, Godart Sp.

Biblis Leucocyma, Godart, Enc. Méth. IX. p. 326 (1819).
Melanitis Leucocyma, Boisduval. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 144. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 404, n. 4.

- a. b. c. ♂♀. Darjeeling. From Messrs. Schlagintweit's Collection.
- d. e. f. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

516. ELYMNIAS KAMARA, Moore.

Elymnias Kamara, n. sp.—Male: Upper-side dark ferruginous-brown, glossed with purple: hind-wing with three rows of ochreous-white spots along exterior margin. Under-side paler brown, suffused with dusky-black, and covered with darker striæ; a dark line, with pale inner border, along exterior margin. Female: Upper-side ferruginous-brown: fore-wing with a series of ochreous-white submarginal spots from posterior angle: hind-wing with a series of ochreous-white markings between the veins. Under-side ochreous, suffused with pale brown, and covered with dark-brown striæ. Expanse of 3 23; inches.

a. b. 3 9. Java. From Mr. Argent's Collection.

Remark.—This species is somewhat allied to Elymnias Casiphone, Hübner.

Genus HYPANIS, Boisdaval.

HYPANIS, Boisdaval, Spéc. Gén. Lép. t. 1X. f. 6 (1836); id. Lép. Madagas. t. 7, f. 5. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 410.

Biblia, pt. Hübner.

517. HYPANIS ILITHYIA, Drury Sp.

Papilio Ilithyia, Drucy, Ill. 11. t. 17, f. 1, 2 (1773).

Biblis Ilithyia, Godart, Enc. Meth. 1X. p. 327.

Papilio Polinice, Cramer, Pap. Exot. 1V. t. 375, f. G. II. (1782).

Hypanis Polinice, Boisdaval, Spéc. Gén. Lép. 1. t. 9, f. 6. E. Doubleday, List Lep. Brit. Mus. pt. 1. p. 145. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 411, n. 2.

a. d. N. India. Presented by Colonel Sykes.

b. J. N. India. From Captain Boys's Collection.

c. Q. N. India.

Genus LIBYTHEA, Fabricius.

LIBYTHEA, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 1, 1807).

Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 412.

HECAEBGE, Hübner, Samml. Exot. Schmett. (1806-27).

518. LIBYTHEA MYRRHA, Godart.

Libythea Myrrha, Godart, Enc. Méth. IX. p. 171 (1819).

Hübner, Zuträge, f. 789, 790. G. R. Gray, Lep.
Ins. Nepal, p. 15, t. 12, f. 4. Boisduval, Spéc. Gén.
Lép. I. t. 10, f. 8. E. Doubleday, List Lep. Brit.
Mus. pt. I. p. 146. Westwood, in Doubleday and
Hewitson's Diurnal Lep. p. 413, n. 1.

- a. d. S. India. Presented by S. N. Ward, Esq.
- b. Q. N. India. Presented by Colonel Buckley.
- c. d. 3 9. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

519. LIBYTHEA LEPITA, Moore.

Libythea Lepita, n. sp.—Differs from Libyth. Myrrha in the ferruginous streak from base of fore-wing being divided into two portions, the first being within the discoidal-cell, the second a round terminal spot beyond its extremity.

- a. b. d. N. India. Presented by Colonel Buckley.
- c. d. e. 3 ♀. Bootan. From Pemberton's Collection.

Stirps V., with ANOPLURIFORM Larva.

Anopluriform, Horsfield, Cat. Lep. Mus. E.I.C. p. 50 (1828).

NATATORIAL, or Anophuriform, Swainson, Cabinet Cyclop. pp. 58. 60 (1840).

LEP. PLEBEII-RURALES, pt. Linnaus.

LEP. TETRAPODA, pt. Latreille, Règ. Anim. V. p. 378 (1829).

NAPAEE-RURALES, Hübner.

SUCCINCTI et SUCCINCTE, pt. Boisduval.

ERYCINIDE, pt. Swainson, Zool. Ill. 2nd ser. III. t. 111 (1832-3): id. Cabinet Cyclop. pp. 86, 91.

ERYCINIDES, Boisduval, Spéc. Gén. des Lép. 1. p. 164 (1836); id. Index Méth. Eur. Lép. p. 14.

ERYCINID E, Westwood, Introd. II. p. 357 (1840); id. in Doubleday and Hewitson's Diurnal Lep. p. 415. Stephens, Cat. Brit. Lep. Brit. Mus. pt. 1. p. 16 (1850).

ERYCINITES, Blanchard, Hist. Nat. des Ins. 11. p. 343 (1845).

ERYCINE, Swainson, Zool. Ill. 2nd ser. 11. t. 33 (1829); id. 111. t. 111 (1832 3).

PAP. PLEBEII-URBICOLE, Linnaus.

Papiliones Gentiles Astyci, Hübner.

Involuti, Boisdaval, Spéc. Gén. Lép. 1. p. 162 (1836). Westwood, Introd. to Ent. II. p. 347; id. Synopsis, p. 88.

Involute, Boisdural, Ind. Meth. Eur. Lép. p. 34.

ERYNNIS, Schrank, Fauna Boica, II. p. 157 (1801).

HESPERIDES, Latreille, Gen. Crust. et Ins. IV. p. 187 (1809); Enc. Méth. IX. p. 706. Boisdural, Spéc. Gén. Lép. 1. p. 167.

x, Leach. Swainson, Cabinet Cyclop. pp. 86, 97 (1840). Boisdural, Ind. Meth. p. 34. Stephens, Cat. Brit. Lep. Brit. Mus. pt. I. p. 21. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 505.

D.E., Stephens, Cat. Brit. Ent. Haust. 1. p. 26 (1829). Westwood, Introd. to Ent. 11. p. 360; id. Synopsis, p. 88 (1840).

Hesperii, Blanchard, Hist. Nat. des Ins. 11. pp. 322, 346 (1845).

URANIIDE, pt. Westwood, Intr. II. p. 369 (1840).

CYDIMONII, Blanchard, Hist. Nat. des Ins. 11. pp. 322, 348 (1845). Walker, List Lep. Brit. Mus. Het. pt. I. p. 4 (1854). 21

Genus ZEMEROS, Boisduval.

Zemeros, Boisduval, Spéc. Gén. Lép. I. t. 21, f. 5 (1836). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 418.

HAMANUMIDA, pt. Hübner.

520. ZEMEROS FLEGYAS, Cramer Sp.

- Papilio Flegyas, Cramer, Pap. Exot. III. t. 280, f. E.F. (1782).
- Zemeros Flegyas, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 1. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 419, t. 69, f. 5.
- Papilio Allica, Fabricius, Ent. Syst. III. pt. I. p. 244 (1793). Donovan, Ins. of India, pl. 37, f. 2.
- Hamanumida Allica, Hübner, Verz. bek. Schmett. p. 18, n. 105.
- Erycina Allica, Godart, Enc. Méth. IX. p. 566.

Zemeros Allica, Boisduval, Spéc. Gén. Lép. t. 21, f. 5.

- a. b. c. d. 3 9. Java. From Dr. Horsfield's Collection.
- e.f. 3 9. Assam. From McClelland's Collection.

Genus TAXILA, E. Doubleday.

Taxila, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 2 (1847). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 421. Emesis, Horsfield. Bo: luval (nec. Fabr.)

521. TAXILA DURGA, Kollar Sp.

- Melitwa Durga, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 441, t. 13, f. 3, 4 (1844).
- Taxila Durga, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 422.
- Nemeobius? Demeter, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 2 (1847).
- a. b. c. 3. Simla. Presented by Colonel Hearsey.

522. TAXILA EGEON, Boisduval Sp.

Emesis Egeon, Boisduval, MS. (1847). Taxila Egeon, E. Doubleday, List Lep. Brit. Mus. pt. II.

- p. 2 (1847). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 422, n. 2, t. 69, f. 2.
- a. b. c. J. Bootan. From Pemberton's Collection.
- d. 9. Silhet. Presented by Colonel Buckley.

523. TAXILA FATNA, Boisduval Sp.

Emesis Fatna, Boisduval, MS. (1847).

Taxila Fatna, E. Doubleday, List Lop. Brit. Mus. pt. 11. p. 2 (1847).

- a. b. d. Bootan. From Pemberton's Collection.
- c. 2. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

524. TAXILA ERATO, Boisduval Sp.

Emesis Erato, Boisduval, MS. (1847).

Taxila Erato, E. Doubleday, List Lep. Brit. Mus. pt. 11. p. 2 (1847).

a. b. c. 3 ?. Darjeeling. From Messrs. Schlagintweit's Collection.

525. TAXILA ECHERIUS, Stoll Sp.

Papilio Echerius, Stoll, Suppl. Cramer's Pap. Exot. V. t. 31, f. 1, a.b. (1791).

Taxila Echerius, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 3. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 422, n. 3.

Erycina Echerius, Godart, Enc. Méth. IX. p. 566.

Hesperia Coriolanus, Fabricius, Ent. Syst. III. pt. 1. p. 284 (1793). Jones, Icon. VI. t. 48, f. 1.

Erycina Coriolanus, Godart, Enc. Meth. 1X. p. 828.

Lycana Xenodice, Hübner, Verz. bek. Schmett. p. 23.

a. b. c. ♂♀. Java. From Dr. Horsfield's Collection.
d. ♀. Java. From Mr. Argent's Collection.

526. TAXILA NEOPHRON, Boisduval Sp.

Emesis Neophron, Boisduval, MS. (1847).

Taxila Neophron, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 3 (1847).

a. 9. Java? From Mr. Argent's Collection.

527. TAXILA DRUPADI, Horsfield Sp.

- Emesis Drupadi, *Horsfield*, Cat. Lep. Mus. E.I.C. t. 2, f. 3, 3a (1828). Boisduval, Spéc. Gén. Lép. 1. t. 7, f. 2.
- Taxila Drupadi, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 2. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 422, n. 6.
- u. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

528. TAXILA FYLLA, Boisduval Sp.

Emesis Fylla, Boisduval, MS. (1847).

- Taxila Fylla, E. Doubleday, List Lep. Brit. Mus. pt. II. p. 2 (1847). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 422, n. 8, t. 69, f. 3.
- a. b. c. ♂ ♀. Bootan. From Pemberton's Collection.
- d. e. 3 2. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus GONILOBA, Westwood.

- GONILOBA, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 511 (1852).
- Epargybeus, Creteus, Tacides, Astraptes, Thracides, Telegonus, et Proteides, pt. Hübner.

Eudamus, pt. Boisduval.

529. GONILOBA CHROMUS, Cramer Sp.

- Papilio Chromus, Cramer, Pap. Exot. III. t. 284, f. E. (1782).
- Goniloba Chromus, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 513, n. 32.
- Hesperia Chromus, Latreille, Enc. Méth. IX. p. 744.
- a. b. c. 3 ♀. Java. From Dr. Horsfield's Collection.
- d. N. India. Presented by Colonel Hearsey.
- e.f. Borneo. Presented by Edwin Shepherd, Esq.

530. GONILOBA SENA, Moore.

Goniloba Sena, Moore, Proc. Zool. Soc. (ined.).

- a. b. c. 3 ?. Java. From Dr. Horsfield's Collection.
- d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

531. GONILOBA DERMA, Moore.

Goniloba Derma, Moore, Proc. Zool. Soc. (ined.).

a. d. Java. From Dr. Horsfield's Collection.

532. GONILOBA BADRA, Moore.

Goniloba Badra, Moore, Proc. Zool. Soc. (ined.).

a. b. c. d. 3 ?. Java. From Dr. Horsfield's Collection.

The transformations of Goniloba Badra are figured on Plate VII., fig. 3, 3a, from Java. "Feeds upon a leguminous plant bearing the native name of Tungkul. March."—(Horsfield, MS.)

The transformations of this species were also observed by Mrs. Hamilton, and are figured among her original drawings, now in the possession of the Entomological Society of London.

533. GONILOBA JAPETUS, Cramer Sp.

Papilio Japetus, Cramer, Pap. Exot. IV. t. 365, f. E. F. (1782). Drury, Ins. 111. t. 17, f. 1, 2.

Hesperia Nepos, Fabricius, Ent. Syst. 111. pt. I. p. 340 (1793). Jones, Icon. VI. t. 76, f. 2. Latreille, Enc. Méth. IX. p. 787. Donovan's Drawings in Bibl. Hope, Oxford.

Goniloba Nepos, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 513, n. 56.

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

The larva and pupa of Goniloba Japetus are figured on Plate VII., fig. 2, 2a, from Java. "Feeds upon the Uwi-leggi, Dioscorea oppositifolia. April, May. Rather scarce."—(Horsfield, MS.)

534. GONILOBA GANA, Moore.

Goniloba Gana, Moore, Proc. Zool. Sec. (ined.).

a, b, c, 3?. Java. From Dr. Horsfield's Collection.

535. GONILOBA RAVI, Moore.

Goniloba Ravi, Moore, Proc. Zool. Soc. (ined.).

a. Pinang. Presented by Dr. Cantor.

536. GONILOBA TAPANA, Moore.

Goniloba Tapana, Moore, Proc. Zool. Soc. (ined.).

a. Borneo. Presented by Edwin Shepherd, Esq.

537. GONILOBA MENAKA, Moore.

Goniloba Menaka, Moore, Proc. Zool. Soc. (ined.). P Hesperia Eson, Boisduval, MS.

a. b. c. d. Darjecling. From Indian Collection, Exposition Universelle at Paris, 1855.

538. GONILOBA GOPALA, Moore.

Goniloba Gopala, Moore, Proc. Zool. Soc. (ined.).

 Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

539. GONILOBA MADIIAVA, Moore.

Goniloba Madhava, Moore, Proc. Zool. Soc. (ined.).

Darjeeling. From Messrs. Schlagintweit's Collection.

540. GONILOBA PRALAYA, Moore.

Goniloba Pralaya, Moore, Proc. Zool. Soc. (incd.).

a. b. Java. From Dr. Horsfield's Collection.

541. GONILOBA BHAGAVA, Moore.

Goniloba Bhagava, Moore, Proc. Zool. Soc. (ined.).

a. N. India. Presented by Colonel Buckley.

542. GONILOBA SAMBARA, Moore.

Goniloba Sambara, Moore, Proc. Zool. Soc. (ined.).

 a. b. c. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus ISMENE, Swainson.

1smene, Swainson, Zool. Ill. 1st ser. t. 16 (1820-1).

THYMELE, Boisduval, Fauna Madagascar.

Castnius, pt. Hübner.

543. ISMENE ŒDIPODEA, Swainson.

- 3 9 Ismene (Edipodea, Swainson, Zool. Ill. 1st scr. t. 16 (1820-21). Thon, Ent. Archiv. p. 91, pl. 4, fig. 5. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 515, n. 3.
 - a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
 - e. J. Bootan. From Pemberton's Collection.
 - f. d. Silhet. Presented by Colonel Buckley.
 - g. $\,$ $\,$ $\,$ $\,$ Canara, S. India. Presented by S. N. Ward, Esq.

The larva and pupa of *Ismene Œdipodea* are figured on Plate VII., fig. 4, 4a, from Java. "Feeds upon *Gartnera Javensis*, which bears the native name of *Kakkas*. August."—(Horsfield, MS.)

544. ISMENE JAINA, Moore.

Ismene Jaina, Moore, Proc. Zool. Soc. (ined.).

 a. β. Darjeeling. From Messrs. Schlagintweit's Collection.

545. ISMENE HARISA, Moore.

Ismene Harisa, Moore, Proc. Zool. Soc. (ined.).

a. b. c. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

546. ISMENE AMARA, Moore.

Ismene Amara, Moore, Proc. Zool. Soc. (ined.).

a. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

547. ISMENE VASUTANA, Moore.

Ismene Vasutana, Moore, Proc. Zool. Soc. (ined.).

- a. Darjeeling. From Pearson's Collection.
- b. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

548. ISMENE BENJAMINI, Guérin-Méneville Sp.

- Hesperia (Thymele) Benjaminii, Guérin-Méneville, in Delessert's Voy. dans l'Inde, pt. 2, p. 79, t. 22, f. 2, 2a (1843).
- Ismene Benjaminii, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 515, n. 4.
- Hesperia Xanthopogon, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 453, t. 18, f. 1, 2 (1844).
- a. N. India. Presented by Colonel Buckley.
- b. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

549. ISMENE JAYADEVA, Moore.

Ismene Jayadeva, Moore, Proc. Zool. Soc. (ined.).

 a. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

550. ISMENE SINTA, Moore.

Ismene Sinta, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

551. ISMENE DASA, Moore.

Ismene Dasa, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

552. ISMENE LADON, Cramer Sp.

Papilio Ladon, Cramer, Pap. Exot. III. t. 284, f. G. (1782).

Ismene Ladon, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 515, n. 11.

Hesperia Ladon, Latreille, Enc. Meth. IX. p. 749.

- a. b. Java. From Dr. Horsfield's Collection.
- c. d. N. India. From the Asiatic Society of Bengal.
- e. N. India. Presented by Colonel Hearsey.

553. ISMENE AMBASA, Moore.

Ismene Ambasa, Moore, Proc. Zool. Soc. (ined.).

- a. b. 3. Java. From Dr. Horsfield's Collection.
- c. \copp. N. India. Presented by Lieutenant Hugo James.

The larva and pupa of *Ismene Ambasa* are figured on Plate VII., fig. 6, 6a, from Java. "Feeds upon a species of Pandanus, bearing the native name of *Pandan-duri*. May. Rather scarce."—(Horsfield, MS.)

554. ISMENE CHAON, Boisduval.

Ismene Chaon, Boisduval, MS.

- a. b. c. d. Java. From Dr. Horsfield's Collection.
- e. Pinang. Presented by Dr. Cantor.

555. ISMENE BATARA, Moore.

Ismene Batara, Moore, Proc. Zool. Soc. (ined.).

a. b. c. Java. From Dr. Horsfield's Collection.

Genus PYRGUS, Hübner.

Pyrgus, Hübner. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 516.

SYRICHTUS, Boisduval.

556. PYRGUS AGAMA, Moore.

Pyrgus Agama, Moore, Proc. Zool. Soc. (ined.).

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Pyrgus Agama* are figured on Plate VII., fig. 1, 1a, from Java. "Feeds upon a species of Microcos, bearing the native name of *Talok*. December to February. Rather common."—(Horsfield, MS.)

557. PYRGUS SUPERNA, Moore.

Pyrgus Superna, Moore, Proc. Zool. Soc. (ined.).

- a. b. N. India. From the Asiatic Society of Bengal.
- c. d. N. India. Presented by Colonel Hearsey.

558. PYRGUS DANNA, Moore.

Pyrgus Danna, Moore, Proc. Zool. Soc. (ined.).

a. b. c. Bootan. From Pemberton's Collection.

vol. 1. 2 k

559. PYRGUS? PURENDRA, Moore.

Pyrgus Purendra, Moore, Proc. Zool. Soc. (ined.).

a. Canara, S. India. Presented by S. N. Ward, Esq.

Genus NISONIADES, Hübner.

Nisoniades, Hübner.

THANAOS, Boisduval.

560. NISONIADES SALSALA, Moore.

Nisoniades Salsala, Moore, Proc. Zeol. Soc. (ined.).

a. b. c. Canara (S. India). Presented by S. N. Ward, Esq.

561. NISONIADES DAHA, Moore.

Nisoniades Daha, Moore, Proc. Zool. Soc. (ined.).

a. b. c. Java. From Dr. Horsfield's Collection.

562. NISONIADES DIOCLES, Boisduval.

Thanaos Diocles, Boisduval, MS.

a. b. c. d. e. 3 9. Java. From Dr. Horsfield's Collection.

563. NISONIADES? AMERTA, Moore.

Nisoniades? Amerta, Moore, Proc. Zool. Soc. (ined.).

- a. Java. From Dr. Horsfield's Collection.
- b. N. India. Presented by Colonel Buckley.

Genus PAMPHILA, Fabricius.

Pamphila, Fabricius, Syst. Gloss. (Illiger's Mag. VI. p. 287, 1807). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 521.

Cælenorrhinus, Cyclopides, Steropes, Augiades, et Thymelicus, pt. Hübner.

HESPERIA, Boisduval.

564. PAMPHILA VEDANGA, Moore.

Pamphila Vedanga, Moore, Proc. Zool. Soc. (ined.).

- a. b. c. d. Java. From Dr. Horsfield's Collection.
- d. &. Bootan. From Pemberton's Collection.

- e. S. N. India. Presented by Colonel Hearsey.
- f. J. Canara, S. India. Presented by S. N. Ward, Esq.
- y. h. 3 ?. N. India. Presented by Colonel Buckley.

565. PAMPHILA NARANATA, Moore.

Pamphila Naranata, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

566. PAMPHILA AUGIAS, Linnœus Sp.

Papilio Augias, Linnaus, Syst. Nat. I. 11. p. 794. Fubricius, Mant. Ins. II. p. 84. Donovan, Ins. of India, t. 48, f. 1.

Pamphila Augias, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 522, n. 14.

Hesperia Augias, Latreille, Enc. Meth. IX. p. 767.

- & Pamphila Pheres, Boisduval, MS.
 - a. b. c. d. e. f. g. h. 3 \cong . Java. From Dr. Horsfield's Collection.

567. PAMPHILA SUMBADRA, Moore.

Pamphila Sumbadra, Moore, Proc. Zool. Soc. (ined.).

a. b. Java. From Dr. Horsfield's Collection.

Genus ACHLYODES, Hübner.

Achlyodes, Hübner, Zuträge.

Eantis, Boisduval.

568. ACHLYODES? CHANDRASA, Moore.

Achlyodes? Chandrasa, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

569. ACHLYODES? SURA, Moore.

Achlyodes? Sura, Moore, Proc. Zool. Soc. (ined.).

 a. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

570. ACHLYODES? VASAVA, Moore.

Achlyodes? Vasava, Moore, Proc. Zool. Soc. (ined.).

 a. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

Genus HESPERIA, Fabricius.

HESPERIA, Fabricius. Swainson, Zool. Ill. 1st ser. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 525.

571. HESPERIA FOLUS, Cramer Sp.

Papilio Folus, Cramer, Pap. Exot. I. t. 74, f. F. (1779). Hesperia Cicero, Fabricius, Ent. Syst. III. pt. I. p. 358 (1793). Latreille, Enc. Méth. IX. p. 787. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 526, n. 16.

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. N. India. From the Asiatic Society of Bengal.
- f. S. India. Presented by S. N. Ward, Esq.

The larva and pupa of *Hesperia Folus* are figured on Plate VII., fig. 7, 7a, copied from the original drawings in the possession of A. Grote, Esq., of Calcutta.

572. HESPERIA FATIH, Kollar.

Hesperia Fatih, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 454, t. 18, f. 5, 6 (1844). Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 526, n. 19.

- a. N. India. Presented by Colonel Buckley.
- b. c. d. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

573. HESPERIA PULOMAYA, Moore.

Hesperia Pulomaya, Moore, Proc. Zool. Soc. (ined.).

a. b. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

574. HESPERIA LEUCOCERCA, Kollar.

Hesperia leucocerca, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 454, t. 18, f. 3, 4 (1844). Westwood, in

Doubleday and Hewitson's Diurnal Lep. p. 526, n. 20.

a. Bootan. From Pemberton's Collection.

575. HESPERIA PUTRA, Moore.

Hesperia Putra, Moore, Proc. Zool. Soc. (ined.).

a. b. c. Java. From Dr. Horsfield's Collection.

576. HESPERIA ASMARA, Moore.

Hesperia Asmara, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

577. HESPERIA ALYSOS, Boisduval.

Hesperia Alysos, Boisduval, MS.

a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.

578. HESPERIA PRABA, Moore.

Hesperia Praba, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

579. HESPERIA INDRANI, Moore.

Hesperia Indrani, Moore, Proc. Zool. Soc. (ined.).

- a. d. N. India. Presented by Colonel Hearsey.
- b. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

580. HESPERIA DAN, Fabricius.

Hesperia Dan, Fabricis, Mant. Ins. II. p. 88 (1787); Ent. Syst. 1II. I. p. 341.

Goniloba Dan, Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 513, n. 52.

Hesperia Eacus, Latreille, Enc. Méth. IX. p. 738 (1819).

a. b. c. d. 3 ?. Java. From Dr. Horsfield's Collection.

581. HESPERIA SEMA, Moore.

Hesperia Sema, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

582. HESPERIA THRAX, Linnæus Sp.

- Papilio Thrax, Linnæus, Syst. Nat. I. II. p. 794 (1767). Fabricius, Mant. Ins. II. p. 87? Donovan, Ins. of India, t. 49, 2.
- Hesperia Thrax, Latreille, Enc. Méth. IX. p. 748. Westwood, in Doubleday and Hewitson's Diurnal Lep. p. 527, n. 38.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. f. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

The larva and pupa of *Hesperia Thrax* are figured on Plate VII., fig. 5, 5a, from Java. "Feeds on the Pisang (*Mura paradisiaca*). November to February. Common."—(Horsfield, MS.)

583. HESPERIA IRAVA, Moore.

Hesperia Irava, Moore, Proc. Zool. Soc. (ined.). Cælænorrhinus Thrax, Hübner, Zutrüge, f. 875-6.

a. b. c. d. Java. From Dr. Horsfield's Collection.

584. HESPERIA PANDIA, Moore.

Hesperia Pandia, Moore, Proc. Zool. Soc. (ined.).

- a. Java. From Dr. Horsfield's Collection.
- b. Canara (S. India). Presented by S. N. Ward, Esq.

The larva and pupa of *Hesperia Pandia* are figured on Plate VII., fig. 10, 10a, copied from the original drawings made by A. Grote, Esq.

585. HESPERIA ESA, Moore.

Hesperia Esa, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

586. HESPERIA DRUNA, Moore.

Hesperia Druna, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

587. HESPERIA ARIA, Moore.

Hesperia Aria, Moore, Proc. Zool. Soc. (ined.).

a. b. Java. From Dr. Horsfield's Collection.

588. HESPERIA CHAYA, Moore.

Hesperia Chava, Moore, Proc. Zool. Soc. (ined.).

- a. b. Java. From Dr. Horsfield's Collection.
- c. Pinang. Presented by Dr. Cantor.
- d. e. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- f. N. India. Presented by Colonel Hearsey.

589. HESPERIA AGNA, Moore.

Hesperia Agna, Moore, Proc. Zool. Soc. (ined.).

- a. b. c. Java. From Dr. Horsfield's Collection.
- d. e. f. g. Canara, S. India. Presented by S. N. Ward, Esq.

590. HESPERIA MANGALA, Moore.

Hesperia Mangala, Moore, Proc. Zool. Soc. (ined.).

- a. b. Pinang. Presented by Dr. Cantor.
- c. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

591. HESPERIA CINNARA, Moore.

Hesperia Cinnara, Moore, Proc. Zool. Soc. (ined.).

a. b. Java. From Dr. Horsfield's Collection.

592. HESPERIA KUMARA, Moore.

Hesperia Kumara, Moore, Proc. Zool. Soc. (ined.).

a. Canara, S. India. Presented by S. N. Ward, Esq.

593. HESPERIA SUTAPA, Moore.

Hesperia Sutapa, Moore, Proc. Zool. Soc. (ined.).

a. Java. From Dr. Horsfield's Collection.

594. HESPERIA DIVODASA, Moore.

Hesperia Divodasa, Moore, Proc. Zool. Soc. (ined.).

a. Canara, S. India. Presented by S. N. Ward, Esq.

Remark.—The above enumerated new species of Hesperia form the subjects of a memoir which is now in course of preparation to be submitted to the Zoological Society of London.

Genus NYCTALEMON, Dalman.

NYCTALEMON, Dalman, Acta Holm. (1824), p. 407. Westwood. Walker, List Lep. Brit. Mus. Het. pt. I. p. 7.

Obontes, Swainson, Zool. Ill. 2nd ser. pl. 125 ().

Ubania, pt. Fabricius. Latreille.

595. NYCTALEMON PATROCLUS, Linnæus Sp.

Papilio Patroclus, Linnæus, Mus. Lud. Ulr. p. 204
(); Syst. Nat. II. p. 749. Clerck, Icon. pl. 37,
f. 1. Fabricius, Spec. Ins. II. p. 13; Mant. Ins. II.
p. 7; Ent. Syst. III. p. 2. Seba, Mus. IV. pl. 47,
f. 13, 16. D'Aubent, Miscell. pl. 17, f. 1, 2.
Olivier, Enc. Méth. Ins. Pap. pl. 8, f. 1. Cramer,
Pap. Exot. III. p. 9, pl. 198, f. A. pl. 109, f. A. B.
Herbst, Pap. pl. 54, f. 2, 3, pl. 55, f. 1.

Nyctalemon Patroclus, Westwood. Drury, Ins. I. p. 13, pl. 7, f. 1, pl. 8, f. 1. Walker, List Lep. Brit. Mus. Het. pt. I. p. 8.

Noctua Patroclus, Fabricius, Ent. Syst. III. 2, 8, 2.

Urania Patroclus, Latreille. Latreille et Godart, Enc. Méth. IX. p. 710. Lamarck, Hist. Nat. Anim. Invert. IV. p. 194. Boisduval, Voy. de l'Astrolabe, pt. I. Lép. p. 254.

Lyssa Achillaria et L. Patroclaria, Hübner, Verz. bek. Schmett. p. 289.

a. Silhet. From Mr. Argent's Collection.

"This insect is common in Collections from China, Assam, Silhet, and Arakan."—(E. Blyth, J. A. S. Beng. (1854), p. 217.)

Tribe II. SPHINGES.

- SPHINX, pt. Linnaus (Sphinges legitima, sec. *, **, *** pt.).
- LEP. CREPUSCULARIA, Latreille, Gén. Crust. et Ins. IV. pp. 187, 209 (1809). Stophens, Cat. Brit. Lop. Brit. Mus. pt. 1. p. 24 (1850).
- FUSICORNES seu CLOSTEBOCERES, pt. Dumeril, Consid. Gén. des Ins. pp. 139, 163, 322 (1823).
- HETEROCERA, pt. Boisduval et Leconte, Icon. Lép. I. p. 89 (1836).

 Boisduval, Ind. Méth. p. 39 (1840). Westwood, Introd. II.
 p. 363 (1840). Stephens, Cat. Lep. Brit. Mus. pt. I. p. 24
 (1850). Walker, Cat. Lep. Brit. Mus. Het. pt. I. p. 1 (1854).

 Stainton, Insecta Brit. Lep. Tineina, p. 2 (1855); id. Manual
 Brit. Butt. p. 72 (1856).
- Chalinoptera, pt. Blanchard, Hist. Nat. des Ins. 11. pp. 322, 349. Chenu, Enc. d'Hist. Nat. Pap. 232.
- Sph. Legitimæ, Integrales, et Dentales, Haworth, Lep. Brit. p. 55 (1803).
- Sphingii, pt. Blanchard, Hist. Nat. des Ins. II. pp. 323, 356. Chenu, Enc. d'Hist. Nat. Pap. p. 252. Walker, Cat. Lep. Brit. Mus. Het. pt. I. p. 2 (1854); id. pt. VIII. p. 76.
- SPHINGIDE, Leach, Edin. Encycl. IX. p. (1815). Horefield,
 Cat. Lep. Mus. E.I.C. pp. 20, 22 (1828). Stephens, Ill. I.
 p. 110 (1828); id. Cat. Brit. Lep. Brit. Mus. pt. I. p. 25 (1850). Westwood, Introd. II. p. 364 (1840). Walker, Cat.
 Lep. Brit. Mus. Het. pt. I. p. 76 (1856). Stainton, Manual Brit. Butt. pp. 75, 81 (1856).
- SPHINGIDES, Latreille, Gén. Crust. et Ins. IV. pp. 188, 209.
- Sphinges, pt. Hübner, Zuträge, p. 4 (1818).
- SPHINGIDES, Boisduval, Ind. Méth. Lép. Eur. p. 45 (1840).
- SPHINGIDE, pt. Swainson, Cab. Cycl. p. 99 (1840).
- Sphingina, Stainton, Insecta Brit. Lep. Tincina, p. 2 (1855); id. Manual Brit. Butt. pp. 72, 75 (1856).
- CASTNII et CASTNITES, pt. Blanchard. Walker.

VOL. 1. 2 L

The Sphinges constitute in this Catalogue a distinct Tribe, equal in rank and value to the Papiliones, or to the other Tribes which will be subsequently defined, although more limited in the number of individuals.

The metamorphosis varies in the different Stirpes. The chrysalis is generally naked, of a cylindrico-conical form, deposited on the surface, under the earth, or rarely enveloped in a slight web.

The antennæ are prismatic, somewhat fusiform, or thickened in the middle and attenuated at the ends. The individuals are provided with a proboscis, varying in size and length in the different Stirpes.

This Tribe is subdivided into five distinct Stirpes, four of which derive their name from the form of the Caterpillar.

The first Stirps forms a natural junction between the Hesperidæ, the last subdivision of the Anopluriform Stirps of the Papiliones, and the second Stirps of the Sphinges. The typical genera are Castnia and Euschemon. Their reciprocal affinity manifests itself in the following characters:—First, in the form of the antennæ: these organs in Castnia resemble those of Hesperia in the length of the club and its attenuation towards the base, while they approach to Sphinx in the prismatic form of the club and its terminal hook. Secondly, the fore-legs are perfect in both sexes of Hesperia and Castnia.

The habit and aspect are very similar in both groups. In the Systems of Lamarck and Latreille, Castnia and Sphinx stand contiguous.

Mr. Swainson, who observed *Castnia* in its native country, states that "they fly by day, and much in the same manner as the typical *Hesperidæ*. The antennæ are intermediate in form between a *Sphinæ* and a *Hesperia*."—(Swainson and Shuckard's Treatise on Insects, p. 104.)

The metamorphosis is as yet a desideratum in Entomology.

The second Stirps, named Elongatæ or Langleib-raupen, Wien. Verz. and Schrank, has a cylindrical larva, more slender and elongated than in the other Stirpes. It is generally without lateral occili; the head is globular, and the abdominal horn short and rigid. The perfect insect has short wings, and flies by day, and the abdomen is terminated by a broad or depressed brush-like appendage. The proboscis is long. In their metamorphosis they exhibit a slight affinity to the Diurna. The typical genera are Sesia and Macroglossa. The metamorphosis is illustrated on Plate VIII., in figures 1, 2, 3, and 4.

The third Stirps, named Acrocephalæ or Spitzohopf-raupen, Wien. Verz. and Schrank, has a larva with a head almost triangular or acuminated above, the body being obliquely striated, generally with yellow,—naked, and somewhat rugose; the abdominal horn of moderate size, smooth, and marked with a peculiar colour. The perfect insect is strikingly distinguished by its angulated or excavated wings. The proboscis is very short or obsolete. The typical genus is Smerinthus. Of this Stirps no transformations are contained in the Company's Museum.

The fourth Stirps, named Amblocephalæ or Stumpfkopf-raupen—obtuse-headed larva,—has a larva with an ovate truncated head; it is nearly naked and even on the surface; the abdominal horn is lengthened, tuberculated, and curved. The perfect insect has entire lanceolate wings; the abdomen is marked with oblique lateral striæ. The proboscis is large and strong, and this character is strikingly manifested in the pupa (see Plate IX., fig. 3a). The typical genera are Acherontia and Sphinx. The metamorphosis is illustrated on Plate VIII., fig. 6, and Plate IX., figs. 1, 2, 3, and 4.

The fifth Stirps, characteristically named in the Wiener Verzeichnis Augen-raupen, larvæ Ophthalmicæ, has a larva with a small globose retractile head, and is moreover strikingly distinguished by the ocelli with which it is marked, and which are also observed on the chrysalis. These ocelli, or eyes, are placed in some genera behind the head only, while in others they exist in a regular row along the entire larva, and in some cases are very prominent and brilliant, as appears in the figures. The metamorphosis takes place on the surface of the earth, the pupa being in some cases covered with a slight web. The pupa is enlarged towards the head, and is generally provided with an annular case, covering the proboscis. The proboscis is not so large as in the preceding Stirps. In the perfect insect the abdomen is long and acute, and the individuals in many cases have the habit of a Vespertilio.

The typical genera are *Deilephila* and *Chærocampa*. The metamorphoses are illustrated on Plate IX., fig. 5, and Plates X. and XI.

Stirps II. Larvæ ELONGATÆ.

Sesiæ, sect. Tectæ et (Denudatæ, div. I.), Haworth, Lep. Brit. pp. 55, 65 (1803).

MACROGLOSSIADÆ, Harris.

Sesiarie, pt. Boisduval, Ind. Méth. Lép. Eur. p. 41 (1840).

Sesiide, Stephens, Ill. I. p. 132 (1828); id. Cat. Brit. Lep. Brit. Mus. pt. I. p. 29 (1850). Stainton, Manual Brit. Butt. pp. 75, 97 (1856).

Sesiides, pt. Blanchard, Hist. Nat. des Ins. II. p. 352 (1845).

Genus SESIA, Fabricius.

Sesia, Fabricius, Ent. Syst. III. I. p. 379 (1775). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 79 (1856).

Hemaris, Dalman, Sp. S. p. 215 ().

MACROGLOSSA, pt. Ochsenheimer. Boisduval.

CEPHONODES, pt. Hübner, Verz. bek. Schmett. p. 131.

596. SESIA HYLAS, Linnæus Sp.

Sphinx Hylas, Linnœus, Mant. I. p. 539 (). Fabricius, Spec. Ins. II. p. 154; id. Mant. Ins. II. p. 99. Gmelin, Syst. Nat. I. 5, 2387, 95.

Sesia Hylas, Fabricius, Ent. Syst. III. pt. I. p. 379. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 84.

Cephonodes Hylas, Hübner, Verz. bek. Schmett. p. 131. Sphinx Picus, Cramer, Pap. Exot. II. p. 83, pl. 148 f. B. (1779).

Macroglossa Picus, Kollar, in Hügel's Kaschmir, IV. pt. II. p. 458.

- a. N. India. Presented by Colonel Sykes.
- b. N. India. Presented by Colonel Hearsey.
- c. Canara, S. India. Presented by S. N. Ward, Esq.
- d. e. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- f. Pinang. Presented by Dr. Cantor.

The larva and pupa of Sesia Hylas are figured on Plate VIII., fig. 1, 1a, copied from General Hardwicke's original drawings, fig. 179.

Genus SATASPES, Moore.

MACBOGLOSSA (Group 3), Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 95.

Differs from *Macroglossa* in having the antennæ stout and strongly serrate-setose; abdomen broad to the tip; the fore-wings very narrow and pointed, and the exterior border extremely oblique.

597. SATASPES INFERNALIS, Westwood Sp.

- Sesia infernalis, Westwood, Cabinet Orient. Ent. p. 61, pl. 30, f. 3 (1847).
- Macroglossa infernalis, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 95.
- a. Silhet. Presented by the Trustees of the British Museum.

Genus MACROGLOSSA, Ochsenheimer.

MACROGLOSSUM, Scopoli, Ent. Carn. p. 414 (1763). Swainson, Zool. Ill. 1st ser. t. 64.

MacBoglossa, Ochsenheimer, Schmett. von Eur. IV. p. 41 (1816). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 85.

SPHINX, pt. Linnaus.

SESIA, pt. Fabricius, Ent. Syst.

PSITHYBOS et CEPHONODES, pt. Hübner.

598. MACROGLOSSA STELLATARUM, Linnæus Sp.

Sphinx Stellstarum, Linnaus, Syst. Nat. I. p. 493 (1758).

Macroglossa Stellatarum, Ochsenheimer, Schmett. von Eur.
IV. p. 42. Stephens, Ill. Brit. Ent. Haust. I.
p. 133; Cat. Brit. Lep. Brit. Mus. pt. I. p. 29.
Boisduval, Ind. Méth. p. 45. Curtis, Brit. Ent.
XVI. pl. 747. Stainton, Manual Brit. Lep. I.
p. 98. Walker, List Lep. Brit. Mus. Het. pt. VIII.
p. 86.

Sesia Stellatarum, Fabricius, Ent. Syst. III. pt. I. p. 380.
Psithyros Stellatarum, Hübner, Verz. bek. Schmett. p. 132.

a. China. Presented by Dr. Cantor.

599. MACROGLOSSA CORYTHUS, Boisduval.

Macroglossa Corythus, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 92 (1856). Macroglossum arcuatum, Horsfield, MS. (1826).

- a. b. c. d. Java. From Dr. Horsfield's Collection.
- e. Canara. Presented by S. N. Ward, Esq.
- f. g. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- h. Ladakh. Presented by Captain R. Strachey.

The larva and pupa of *Macrog. Corythus* are figured on Plate VIII., fig. 2, 2a, from Java.

600. MACROGLOSSA GILIA, Boisduval.

Macroglossa Gilia, Boisduval, MS. Herrich-Schæffer, Lep. Exot. series I. pt. 6, f. 107 (1854). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 93 (1856). Macroglossum maculatum, Horsfield, MS. (1826).

a. b. c. d. e. f. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Macrog. Gilia* are figured on Plate VIII., fig. 3, 3a, from Java. "Feeds on the Patji or Bengkudu (*Morinda citrifolia*). January and February. Tolerably common."—(Horsfield, MS. Notes.)

601. MACROGLOSSA GYRANS, Boisduval.

Macroglossa gyrans, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 91 (1856).

- a. b. N. India. Presented by Colonel Sykes.
- c. d. N. India. Presented by Colonel Hearsey.

602. MACROGLOSSA SITIENE, Boisdwal.

Macroglossa Sitiene, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 92 (1856).

a. N. India. Presented by Colonel Buckley.

603. MACROGLOSSA PASSALUS, Drury Sp.

Sphinx Passalus, Drury, Ins. II. p. 52, pl. 29, f. 2 (1773).

Macroglossa Passalus, Westwood, in 2nd ed. Drury's Ins. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 92.

Sphinx Belis, Cramer, Pap. Exot. II. p. 147, pl. 94, f. C. (1782).

Macroglossum Rhebus, De Cerisy, MS. (1826).

- Java. (Mac. Rhebus, De Cerisy). From Dr. Horsfield's Collection.
- b. c. N. India. Presented by Colonel Sykes.
- d. e. N. India. Presented by Colonel Hearsey.
- f. Canara, S. India. Presented by S. N. Ward, Esq.

604. MACROGLOSSA DIVERGENS, Walker.

Macroglossa divergens, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 94 (1856).

a. b. Canara, S. India. Presented by S. N. Ward, Esq.

605. MACROGLOSSA NYCTERIS, Kollar.

Macroglossa Nycteris, Kollar, in Hügel's Kaschmir, 1V. pt. II. p. 458, pl. XIX. f. 5 (1844).

Macroglossa volucris, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 94 (1856).

a. N. India. From Captain Boys's Collection.

606. MACROGLOSSA FARO, Cramer Sp.

Sphinx Faro, Cramer, Pop. Exot. III. p. 165, pl. 285 f. C. (1782).

a. Java. From Dr. Horsfield's Collection.

Remark.—This is a very distinct and well-defined species, and is correctly figured by Cramer.

Genus LOPHURA, Boisduval.

LOPHURA, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 105 (1856).

Enyo, pt. Hübner, Verz. bek. Schmett.

607. LOPHURA HYAS, Boisduval.

Lophura Hyas, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 107 (1856).

Macroglossum geometricum, Horsfield, MS. (1826).

a. b. c. d. e. f. Java. From Dr. Horsfield's Collection.

The larva and pupa of Lophura Hyas are figured on Plate VIII., fig. 4, 4a, from Java. "Feeds on a species of Pæderia, bearing the native name of Simbuan."—(Horsfield, MS.)

Stirps III. Larvæ ACORCEPHALÆ.

Genus SMERINTHUS, Latreille.

SMERINTHUS, Latreille, Hist. Nat. Ins. III. p. 401 (1802). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 239.

SPHINK, pt. Linnaus.

MERINTHUS, Meigen.

Paonias, Mimas, et Polyptychus, Hübner, Verz. bek. Schmett.

608. SMERINTHUS DRYAS, Boisduval.

Smerinthus Dryas, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 250 (1856).

Smerinthus parallelis, Horsfield, MS. (1826).

Smerinthus Horsfieldii, De Cerisy, MS. (1826).

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. ?. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

609. SMERINTHUS DENTATUS, Cramer Sp.

Sphinx dentatus, Cramer, Pap. Exot. II. p. 42, pl. 125,
f. G. (1779). Fabricius, Spec. Ins. II. p. 43, n. 16;
Mant. Ins. II. p. 94, n. 18; Ent. Syst. III. I. p. 361, n. 19.

Smerinthus dentatus, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 252.

Polyptychus dentatus, Hübner, Verz. bek. Schmett. p. 141. Sphinx Timesius, Stoll, Suppl. Cramer, Pap. Exot. V. p. 172, t. 40, f. 1.

- a. J. N. India. Presented by Colonel Hearsey.
- b. ?. N. India. From Captain Boys's Collection.

Stirps IV. Larvæ AMBLOCEPHALÆ.

Genus LEUCOPHLEBIA, Westwood.

Leucophlebia, Westwood, Cabinet Orient. Ent. p. 46 (1847). Walker, List Lep. Brit. Mus. Het. pt. IX. p. 136.

610. LEUCOPHLEBIA LINEATA, Westwood.

Leucophlebia lineata, Westwood, Cabinet Orient. Ent. p. 46, pl. 22 (1847). Walker, List Lep. Brit. Mus. Het. pt. IX. p. 136.

- a. Java. From Dr. Horsfield's Collection.
- b. N. India. From the Asiatic Society of Bengal.

The larva of this interesting genus is figured on Plate VIII., fig. 5, copied from the original drawing made by — Frith, Esq. "Feeds on the Ootoo, or common thatch-grass (Saccharum cylindricum). Rather common."—(Frith's MS. Notes.)

Remark.—This genus is arranged by Mr. F. Walker, in his tribe Noctuites, at the end of the family Leucanidae, who remarks, that it "is very remote from the other Leucanidae, and has some affinities with the Bombycites, but hardly belongs to any described family of Lepidoptera heterocera."

Genus BASIANA, Walker.

Bastana, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 236 (1856).

611. BASIANA CERVINA, Walker.

Basiana cervina, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 237 (1856).

- a. b. & . Madras. From Captain J. M. Jones's Collection.
- c. 9. N. India. Presented by the Trustees of the British Museum.

Genus AMBULYX, Boisduval.

Ambulyx, Boisduval, MS. Westwood, Orient. Ent. (1847). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 120 (1856).

PHOLUS et AMBLYPTERUS, pt. Hübner.

VOL. 1, 2 M

612. AMBULYX SUBSTRIGILIS, Westwood.

Sphinx (Ambulyx) substrigilis, Westwood, Orient. Ent. p. 61, pl. 30, f. 2 (1847).

Ambulyx substrigilis, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 122.

Ambulyx Moorei, Boisduval, MS. Mus. E.I.C.

- a. Java. (A. Moorei, Boisd.) From Dr. Horsfield's Collection.
- b. Canara, S. India. Presented by S. N. Ward, Esq.

Genus CALYMNIA, Boisduval.

Calymnia, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 123 (1856).

Amblypterus, pt. Hübner.

613. CALYMNIA PANOPUS, Cramer Sp.

Sphinx Panopus, Cramer, Pap. Exot. III. p. 50, pl. 224, f. A.B. (1782).

Calymnia Panopus, Boisduval. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 124.

Amblypterus Panopus, Hübner, Verz. bek. Schmett. p. 133.

Smerinthus? Panopus, Westwood, Cabinet Orient. Ent. p. 13, pl. 6, f. 2.

a. b. c. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Calymnia Panopus* are figured on Plate VII., fig. 6, 6a, from Java. "Feeds on the Manga (*Mangifera indica*). May."—(Horsfield, MS.)

Genus ACHERONTIA, Ochsenheimer.

Acherontia, Ochsenheimer, Schmett. von Eur. IV. p. 44 (1816). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 233.

SPHINK, pt. Linnaus.

Acherontia, pt. Hübner, Verz. bek. Schmett. (1816).

BRACHYGLOSSA, Boisduval.

614. ACHERONTIA STYX, Westwood.

Acherontia Styx, Westwood, Cabinet Orient. Ent. p. 88, pl. 42, f. 3 (1847).

Acherontia Atropos, var., Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 234.

Acherontia Medusa, De Cerisy, MS. Mus. E.I.C. (1826).

- e. d. Pinang. Presented by Dr. Cantor, 1854.
- f. 9. Dukhun. Presented by Colonel Sykes.
- g. h. ♂♀. Madras. From Captain J. M. Jones's Collection.

The larva and pupa of Ach. Styx are figured on Plate IX. fig. 1, 1a, from India, copied from the original drawings made by Lady Isabella Rose Gilbert.

615. ACHERONTIA SATANAS, Boisduval.

Acherontia Satanas, Boisduval, Spéc. Gén. des Lép. Planches, p. 5, pl. 16, f. 1 (1836).

Acherontia Lethe, Westwood, Cabinet Orient. Ent. p. 87, pl. 42, f. 2 (1847).

Sphinx Atropos, var., Cramer, Pap. Exot. III. p. 74, pl. 237, f. A.

? Acherontia Morta, Hübner, Verz. bek. Schmett. p. 140.
Acherontia Circe, De Cerisy, MS. Mus. E.I.C. (1826).

 $g. \circ .$ China. Presented by Dr. Cantor.

The larva and pupa of Ach. Satanas are figured on Plate IX., fig. 2, 2a, from Java. "Feeds on the Tambaku, Kechubung (Nicotiana Tabacum). January and February. Common."—(Horsfield, MS.)

Genus SPHINX, Linnaus.

Sphinx, Linnæus, Syst. Nat. I. 11. p. 796 (1767). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 211.

AGRIUS, LETHIA, et PHLEGETHONTIUS, pt. Hübner.

616. SPHINX CONVOLVULI, Linnæus.

Sphinx Convolvuli, Linnaus, Syst. Nat. 1. 2, p. 798 (1767). Drury, Ins. I. pl. 25, f. 1. Cramer, Pap. Exot. 11I. p. 55, pl. 225, f. D. Fabricius, Spec. Ins. 11. p. 150; Mant. Ins. 11. p. 97; Ent. Syst.

1II. I. p. 374. Stephens, Ill. Brit. Ent. Haust. I. p. 119; Cat. Lep. Brit. Mus. pt. I. p. 27. Westwood, Brit. Moths, I. p. 12, pl. 3, f. 1-3. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 212.

Agrius Convolvuli, Hübner, Verz. bek. Schmett. p. 140.

a.b.c.d. ♂♀. Java. From Dr. Horsfield's Collection.

e. 9. Pinang. Presented by Dr. Cantor.

f. g. 3 ?. Dukhun. Presented by Colonel Sykes.

h. i. ♂♀. Madras. From Captain J. M. Jones's Collection.

The larva and pupa of Sph. Convolvuli are figured on Plate IX., fig. 3, 3a, from Java. "Feeds on Phaseolus Max. January."—(Horsfield, MS.)

Genus MACROSILA, Boisduval.

MACROSILA, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 198 (1856).

COCYTIUS, PHLEGETHONTIUS, ACHERONTIA, et II YLOICUS, pt. Hübn.

617. MACROSILA NYCTIPHANES, Boisduval.

Macrosila Nyctiphanes, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 209 (1856).

a. b. c. & \(\rightarrow \). Silhet. Presented by Colonel Buckley.

618. MACROSILA DISCISTRIGA, Walker.

Macrosila discistriga, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 209 (1856).

Sphinx emarginata, Horsfield, MS. (1826).

a.b.c.d. & Q. Java. From Dr. Horsfield's Collection.

e. Q. Canara, S. India. Presented by S. N. Ward, Esq.

f. y. $\mathcal{S} \circ \mathcal{S}$. N. India. Presented by Colonel Buckley.

Genus ZONILIA, Boisduval.

ZONILIA, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 192 (1856).

NEPHELE, pt. Hübner.

619. ZONILIA MORPHEUS, Cramer Sp.

Sphinx Morpheus, Cramer, Pap. Exot. II. p. 84, pl. 149, f. D. (1779).

Zonilia Morpheus, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 194.

Nephele Morpheus, Hübner, Verz. bek. Schmett. p. 133.

Sphinx Hespera, Fabricius, Spec. Ins. II. p. 152; Mant. Ins. II. p. 91; Ent. Syst. III. pt. I. p. 372.

? Sphinx Chiron, Cramer, Pap. Exot. II. pl. 137, f. E.

- a. b. Dukhun. Presented by Colonel Sykes.
- c. d. N. India. Presented by Colonel Hearsey.
- e. Canara. Presented by S. N. Ward, Esq.
- f. g. Ceylon. From M. Jonville's Collection.

Stirps V. Larvæ OPHTHALMICÆ.

Genus PANACRA, Walker.

Panacra, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 154 (1856).

620. PANACRA AUTOMEDON, Boisduval Sp.

Deilephila Automedon, Boisduval, MS.

Panacra Automedon, Walker, List Lep. Brit. Mus. IIct. pt. VIII. p. 154 (1856).

 Silhet. Presented by the Trustees of the British Museum.

621. PANACRA SCAPULARIS, Horsfield Sp.

Deilephila scapularis, Horsfield, MS. (1826).

Panacra scapularis, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 157 (1856).

a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Pan. scapularis* are figured on Plate IX., fig. 5, 5a, from Java. "Feeds on a species of Arum, bearing the native name of *Lumba*. February and March. Solitary in April and May."—(Horsfield, MS.)

622. PANACRA VIGIL, Guérin-Méneville Sp.

Sphinx (Deilephila) Vigil, Guérin-Méneville, in Delessert's Souv. Voy. dans l'Inde, pt. II. p. 80, pl. 23, f. 1 (1843).

Panacra lignaria, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 156 (1856).

a. b. Ceylon. From M. Jonville's Collection.

The larva, pupa, and imago of this species are figured among Mr. E. Layard's Ceylonese drawings.

623. PANACRA BUSIRIS, Boisduval Sp.

Deilephila Busiris, Boisduval, MS.

Panacra Busiris, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 158 (1856).

- Silhet. Presented by the Trustees of the British Museum.
- b. Canara, S. India. Presented by S. N. Ward, Esq.

Genus PHILAMPELUS, Harris.

Philampelus, Harris, Amer. Journ. Sci. XXXVI. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 173.

Pholus, Argeus, et Dupo, pt. Hübner, Verz. bek. Schmett.

ORNEUS et DAPHNIS, pt. Hübner, Verz. bek. Schmett.

Enyo, pt. Hübner. Walker.

624. PHILAMPELUS ANCEUS, Cramer Sp.

Sphinx Anceus, Cramer, Pap. Exot. IV. p. 124, pl. 355, f. A. (1782).

Enyo Anceus, Hübner, Verz. bek. Schmett. p. 132. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 119.

a. b. ♂♀. Java. From Dr. Horsfield's Collection.

c. 9. Pinang. Presented by Dr. Cantor.

The larva and pupa of *Phil. Anceus* are figured on Plate IX., fig. 4, 4a, from Java. "Feeds on a species of Cissus, bearing the native name of *Jambul*. March."—(Horsfield, MS.)

625. PHILAMPELUS SERICEUS, Walker.

Philampelus sericeus, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 181.

? Sphinx anceus, Cramer.

- Silhet. Presented by the Trustees of the British Museum,
- b. c. d. e. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

626. PHILAMPELUS NAGA, Moore.

Philampelus Naga, n. sp.—Differs from Phil. sericeus in being of a paler colour and more silky in appearance: the fore-wing has an oblique blackish streak from middle of costal margin to near middle of outer margin, another from the middle of this to near base of posterior margin, and one tapering along exterior margin from near apex; also various small narrow undulating lines. Expanse 4½ inches.

 a. b. c. d. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus DARAPSA, Walker.

Darapsa, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 182 (1856).

DAPHNIS, pt. Hübner.

CHEROCAMPA, pt. Harris.

627. DARAPSA HYPOTHOÜS, Cramer Sp.

Sphinx Hypothous, Cramer, Pap. Exot. III. p. 165, pl. 285, f. F. (1782).

Darapsa Hypothoüs, Walker, List Lep. Brit. Mue. Het. pt. VIII. p. 186.

Daphnis Hypothous, Hübner, Verz. bek. Schmett. p. 134.

a. b. c. d. e. f. ♂ ♀. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Darapsa Hypothoüs* are figured on Plate X., fig. 2, 2a, from Java. "Feeds on the Malati-kosta (*Cadamba jasminiflora*),—April; and on a species of Contorta, bearing the native name of *Alluk-antung*. January to April."—(Horsfield, MS.)

Genus DAPHNIS, Hübner.

Daphnis, Hübner, Verz. bek. Schmett. p. 134. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 187.

Deilephila, pt. Boisduval, Ind. Méth.

CHEROCAMPA, Curtis.

628. DAPHNIS NERII, Linnæus Sp.

Sphinx Nerii, Linnæus, Syst. Nat. I. 2, p. 798 (1767).
 Fabricius, Spec. Ins. II. p. 142; Mant. Ins. II.
 p. 93; Ent. Syst. III. I. p. 360. Cramer, Pap.
 Exot. III. p. 51, pl. 224, f. D.

Daphnis Nerii, Hübner, Verz. bek. Schmett. p. 134. Stephens, Cat. Brit. Lep. p. 29. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 188.

Deilephila Nerii, Boisduval, Ind. Méth. p. 47.

Chærocampa Nerii, Curtis, Brit. Ent. XIII. pl. 626.

- a. b. c. $3 \circ$. Dukhun. Presented by Colonel Sykes.
- c. N. India. Presented by Colonel Hearsey.
- d. Madras. From Captain J. M. Jones's Collection.

The larva and pupa of Daphnis Nerii are figured on Plate X., fig. 3, 3a, copied from the original drawings of General Hardwicke in the British Museum. "Larva found full-grown at Dum-Dum in the beginning of November, which changed to a pupa on the 20th, the imago coming forth on December 21st. Another full-grown larva found on May 7th, canging to pupa on the 11th, the perfect insect emerging on the 24th. Feeds on Nerium Oleander."—(Hardwicke, MS. Note.)

Genus PERGESA, Walker.

Pergesa, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 149 (1856). Deilephila, pt. Ochsenheimer. Boisduval. Stephens.

THERETRA et OREUS, pt. Hübner.

CHEROCAMPA, pt. Westwood. Stephens.

629. PERGESA ACTEUS, Cramer Sp.

Papilio Acteus, Cramer, Pap. Exot. III. p. 93, pl. 248, f. A. (1782).

Pergesa Acteus, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 153.

Oreus Acteus, Hübner, Verz. bek. Schmett. p. 136.

- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. N. India. From the Asiatic Society of Bengal.

The larva and pupa of *Pergesa Acteus* are figured on Plate X., fig. 1, 1a, from Java. "Feeds on a species of Arum, bearing the native names of *Senti* and *Suwuy*. January and February. Scarce."—(Horsfield, MS.)

The transformations of this species were also observed by Captain J. Mortimer Slater at Dinapore, in July, 1848, and are figured on page 182 of his original drawings. Also by General Hardwicke (see his Drawings, fig. 172a).

630. PERGESA CASTOR, Boisduval Sp.

Deilephila Castor, Boisduval, MS.

Pergesa Castor, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 153 (1856).

- a. b. c. d. ♂ ♀. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- e. f. g. h. ♂ ♀. Darjeeling. From Messrs. Schlagintweit's Collection.

Genus ELIBIA, Walker.

ELIBIA, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 148 (1856).

631. ELIBIA DOLICIIUS, Westwood Sp.

Chærocampa Dolichus, Westwood, Cabinet Orient. Ent. p. 61, pl. 30, f. 1 (1847).

Elibia Dolichus, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 149.

- Silhet. Presented by the Trustees of the British Museum.
- b. N. India. From Mr. Argent's Collection.

Genus DEILEPHILA, Ochsenheimer.

Deilephila, Ochschheimer, Schmett. von Eur. IV. p. 42 (1816). Curtis. Stephens. Boisduval. Walker.

Phryxus, Hyles, et Thaumas, pt. Hübner.

vol. 1. 2 n

- 632. DEILEPHILA LATHYRUS, Boisduval.
 - Deilephila Lathyrus, Boisduval, MS. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 172 (1856).
 - a. N. India. From Captain J. M. Jones's Collection.
- 633. DEILEPHILA LIVORNICA, Esper Sp.
 - Sphinx Livornica, Esper, Ausl. Schmett. II. pp. 87, 196,
 pl. 8, fig. 4 (1785); id. II. Suppl. 41, pl. 46, f. 3—7.
 Hübner, Sphing. p. 96, pl. 12, f. 65, pl. 23, f. 112.
 - Deilephila Livornica, Stephens, Cat. Brit. Lep. Brit. Mus. pt. I. p. 28. Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 164.
 - Phryxus Livornica, Hübner, Verz. bek. Schmett. p. 137.
 - Sphinx lineata, Fabricius, Spec. Ins. II. p. 147; Mant. Ins. II. p. 96; Ent. Syst. III. I. p. 368.
 - Sphinx lineata, Stephens, Ill. Brit. Lep. Haust. I. p. 126, pl. 12, f. 1.
 - a. b. c. d. 3 ?. Landoor, N. W. India. Presented by Colonel Hearsey.

Genus CHÆROCAMPA, Duponchel.

- Cherocampa, Duponchel, Hist. Nat. Lép. France, Suppl. II. p. 159 (1835). Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 126. Deilephila, pt. Ochsenheimer. Boisduval.
- OREUS, HIPPOTION, ISOPLES, AMPHION, THERETRA, et THAUMAS, pt. Hübner.
- METOPSILUS, pt. Duncan, Brit. Moths, p. 154.
- 634. CHÆROCAMPA CELERIO, Linnœus Sp.
 - Sphiux Celerio, Linnaus, Syst. Nat. 1, 2, p. 800 (1767).
 Fabricius, Spec. Ins. 11, p. 151. Cramer, Pap. Exot.
 11, p. 42, pl. 25, f. E.
 - Chærocampa Celerio, Stephens, Cat. Brit. Lep. p. 28. Walker, List Lep. Brit. Mus. Het. pt. V111. p. 128. Stainton, Brit. Butt. I. p.
 - Deilephila Celerio, Stephens, Ill. Brit. Ent. Haust. I. p. 128. Boisdural, Ind. Méth. Eur. Lép. p. 47.
 - Hippotion Celerio, Hübner, Verz. bek. Schmett. p. 135.
 - Deilephila inquilina, Harris, Ex. p. 93, pl. 28, f. 1.
 - Hippotion Ocys, Hübner, Verz. bek. Schmett. p. 135.

- a. b. c. d. Java. From Dr. Horsfield's Collection.
- e. N. India. Presented by Colonel Sykes.
- f. g. h. N. India. Presented by Colonel Hearsey.

The larva and pupa of *Chær. Celerio* are figured on Plate XI., fig. 1, 1a, copied from fig. 165b of the original drawings of General Hardwicke in the British Museum.

635. CHÆROCAMPA ALECTO, Linnæus Sp.

Sphinx Alecto, Linnæus, Mus. Lugd. Ulr. p. 357 (). Drury, Ins. Exot. 11. p. 48, pl. 27, f. 4. Cramer, Pap. Exot. II. p. 62, pl. 137, f. D. Fabricius, Spec. Ins. II. p. 152; Mant. Ins. 11. p. 97; Ent. Syst. III. I. p. 376. Menetries, Cat. Obj. Zool. Caucase, p. 258.

Chærocampa Alecto, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 130.

Isoples Alecto, Hübner, Verz. bek. Schmett. p. 135.

Deilephila Alecto, Boisduval, Ind. Méth. p. 46.

- Deilephila Cretica, Boisduval, Icon. Hist. Lep. Sphingidæ, p. 20, Q. Duponchel, Hist. Nat. Lép. France, III. Suppl. p. 15, pl. 1, f. 3.
- a. b. c. d. ♂ ♀. Java. From Dr. Horsfield's Collection.
- e. N. India. Presented by Colonel Buckley.
- f. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.

"The larva and pupa of *Chær. Alecto* are figured on Plate X., fig. 4, 4a, from Java."—(Horsfield.)

The transformations of this species were also observed by Captain J. Mortimer Slater at Dinapore, July, 1849, who states that "the larva is common on the vine with Char. Clotho."

The transformations are also figured in General Hardwicke's drawings (fig. 173) in the British Museum.

636. CHÆROCAMPA SUFFUSA, Walker.

Chærocampa suffusa, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 146 (1856).

- a. China. Presented by Dr. Cantor.
- b. Borneo. Presented by Hugh Low, Esq.

637. CHÆROCAMPA PALLICOSTA, Boisduval Sp.

Deilephila pallicosta, Boisduval, MS.

Chærocampa pallicosta, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 145 (1856).

a. b. c. Silhet. Presented by Colonel Buckley.

638. CHÆROCAMPA THYELIA, Linnæus Sp.

Sphinx Thyelia, Linnaus, Mus. Lugd. Ulr. p. 360 ();
Syst. Nat. I. 2, p. 803. Clerck, Icon. pl. 46, f. 7, 8.
Cramer, Pap. Exot. I. p. 58, pl. 226, f. E.F. Fabricius, Spec. Ins. II. p. 153; Mant. Ins. II. p. 98;
Ent. Syst. III. 1, p. 378.

Isoples Thyelia, Hübner, Verz. bek. Schmett. p. 135.

Var. Sphinx Boërhavie, Fabricius, Spec. Ins. 11. p. 148; Mant. Ins. 11. p. 96; Ent. Syst. 111. 1. p. 371. Sulzer, Hist. Ins. pl. 20, f. 3.

Var. Sphinx Pluto, Fabricius, Spec. Ins. II. p. 148.

Var. Sphinx Eson, Cramer, Pap. Exot. 111. p. 57, pl. 226, f. C.

Isoples Eson, Hübner, Verz. bek. Schmett. p. 135.

Cherocampa Eson, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 137.

Deilephila Rafflesii, Horsfield, MS. (1826).

- a. b. c. d. Java. From Dr. Horsfield's Collection.
- e. China. Presented by Dr. Cantor.
- f. N. India. Presented by Colonel Hearsey.
- g. h. i. j. Canara. Presented by S. N. Ward, Esq.

639. CHÆROCAMPA LINEOSA, Walker.

Chærocampa lineosa, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 144 (1856).

- a. b. c. Darjeeling. From Indian Collection, Exposition Universelle at Paris, 1855.
- d. e. Darjeeling. From Messrs. Schlagintweit's Collection.

640. CHÆROCAMPA NESSUS, Drury Sp.

Sphinx Nessus, Drury, Ill. Exot. Ins. II. p. 46, pl. 27, f. 1 (1773). Cramer, Pap. Exot. III. pl. 226, f. D. Cherocampa Nessus, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 140.

a. b. c. d. e. f. Java. Presented by Dr. Horsfield.

The larva and pupa of *Chær. Nessus* are figured on Plate X1., fig. 2, 2a, from Java. "Feeds on the Uwi (*Dioscorea oppositifolia*). December to March."—(Horsfield, MS.)

641. CHÆROCAMPA CLOTHO, Drury Sp.

Sphinx Clotho, Drury, Ill. Exot. Ins. 11. p. 48, pl. 28,
f. 1 (1773). Fabricius, Syst. Ent. p. 540; Mant. Ins. 11. p. 97; Ent. Syst. 111. 1. p. 376.

Charocampa Clotho, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 141.

Deilephila Cyrene, Westwood, Cabinet Orient. Ent. p. 13, pl. 6, f. 1 (1847).

 $a, b, c, d, \beta \geqslant$. Java. From Dr. Horsfield's Collection.

e. China. Presented by Dr. Cantor.

642. CHLEROCAMPA LUCASI, Bo

Deilephila Lucasii, Boisdural, MS.

Chierocampa Leucasii, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 141 (1856).

Deilephila spilota, Horsfield, MS. (1826).

a. b. c. d. Java. From Dr. Horsfield's Collection.

e. Canara, S. India. Presented by S. N. Ward, Esq.

The larva and pupa of *Char. Lucasi* are figured on Plate X1., fig. 3, 3a, from Java. "Feeds on the Galing (*I Cissus*). December to April. Most abundant." -(Horsfield, MS.)

643. CHÆROCAMPA LYCETUS, Cramer Sp.

Sphinx Lycetus, Cramer, Pap. Exot. I. pl. 61, f. D. (1779). Fabricius, Ent. Syst. III. I. p. 371.

Chærocampa Lycetus, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 143.

Xylophanes Lycctus, Hübner, Verz. bek. Schmett. p. 136. Sphinx Drancus, Cramer, Pap. Exot. II. p. 56, pl. 132, f. F.

a. N. India. From the Asiatic Society of Bengal.

b. c. N. India. Presented by Colonel Hearsey.

644. CHÆROCAMPA OLDENLANDIÆ, Fabricius Sp.

Sphinx Oldenlandiæ, Fabricius, Spec. Ins. II. p. 148
(1781); Mant. Ins. II. p. 96; Ent. Syst. III. I.
p. 370. Lewin, Prodr. Ent. p. 4, pl. 3. Thon, Ent. Archiv. pt. I. p. 6, pl. 1, f. 3.

Chærocampa Oldenlandiæ, Walker, List Lep. Brit. Mus. Het. pt. VIII. p. 142.

Xylophanes Gortys, Hübner, Saminl. Exot. Schmett. pp. 58, 513-14.

a. b. c. d. e. ♂♀. Java. From Dr. Horsfield's Collection.

The larva and pupa of *Char. Oldenlandiæ* are figured on Plate XI., fig. 4, 4a, from Java. "Feeds on a species of Cissus, bearing the native name of *Galing*. December."—(Horsfield, MS.)

645. CIIÆROCAMPA BISECTA, Horsfield Sp.

Deilephila Silhetensis, Boisduval, MS.*

Charocampa Silhetensis, Walker, List Lep. Brit. Mus. Het. pt. V111. p. 143.

Deilephila bisecta, Horsfield, MS. (1826).

- a. b. c. d. Java. From Dr. Horsfield's Collection.
- e. N. India. Presented by Colonel Buckley.

The larva and pupa of *Chær. bisecta* are figured on Plate XI., fig. 5, 5a, from Java. "Feeds on a species of Boërhavia, bearing the native name of *Chakas-ayam*. February and March."—(Horsfield, MS.)

^{*} This name is cancelled, as being inapplicable.

APPENDIX.

Pare

17. Add the following to Tribe I.:-

Papiliones, Swainson, Zool. Ill. 2nd ser. pl. 114 (1832-3); id. Cabinet Cyclop. p. 58 (1840).

ACHALINOPTERA, pt. Blanchard, Hist. Nat. des Ins. 11. pp. 322-3 (1845).

Suspensi, Boisduval, Spéc. Gén. Lép. 1. pp. 162, 164 (1836).

Pendule, Boisdaval, Ind. Meth. Eur. Lép. p. 15 (1840).

Nubi, Westwood, Introd. to Ent. II. p. 317; id. Syn. p. 87 (1840).

18. Add the following to Stirps I.:-

ONISCIFORM, Westwood.

Suctorial, or Vermiform, Swainson, Cab. Cyclop. pp. 58, 61 (1840).

Lef. Hexapoda, pt. Latreille, Reg. Anim. V. (1829). Lycening, Swainson, Cabinet Cyclop. pp. 87, 89 (1840). Lycenites, Blanchard, Hist. Nat. des Ins. 11. p. 342 (1845).

ERYCINII, pt. Blanchard, id. pp. 322, 341.

- 21. No. 7. The larva and pupa of *Polyommatus Laius* are figured on Plate XII., fig. 1, 1a, copied from the original drawings in the possession of A. Grote, Esq., of Calcutta.
- 44. No. 67. The larva and pupa of Amblypodia Timoleon are figured on Plate XII., fig. 3, 3a, copied from the original drawings in the possession of A. Grote, Esq., of Calcutta.
- No. 81. The larva and pupa of Myrina Triopas are figured on Plate XII., fig. 5, 5a, from A. Grote, Esq.
 - No. 82. The larva and pupa of Myrina Etolus are figured on Plate XII., fig. 6, 6a, from A. Grote, Esq.
- No. 93. The larva and pupa of Anops Thetys are figured on Plate XII., fig. 7, 7a, from A. Grote, Esq.
- 55. Add the following to Stirps II. A:-

PAPILIONII, pt. Blanchard.

PAP. PARNASII, pt. Linnæus.

Page.

- 56. No. 99. The larva and pupa of Callidryas Philippina are figured on Plate XII., fig. 8, 8a, from A. Grote, Esq.
- 72. No. 138. The larva and pupa of Pieris Mesentina are figured on Plate XII., fig. 9, 9a, from A. Grote, Esq.; also figured among General Hardwicke's drawings (fig. 89) in the British Museum.
- 73. No. 142. Add page 103 and plate 44.
- 74. No. 143. Add page 103 and plate 44.
- 76. No. 148. Add page 102 and plate 44.
- 78. No. 153. Add page 102 and plate 44.
- 79. No. 155. Add page 103 and plate 44.
- 80. No. 160. The transformations of *Pieris Eucharis* were observed by Captain Mortimer Slater, and are figured on page 396 of his "Notes." "The larva was taken October 1st, changing to a pupa the next day, and the image emerging on the 13th; the larva feeds upon the *Guava*."
 - The transformations of this species were also observed by Mrs. Hamilton in Moulmein, in 1853, and are figured among that lady's original drawings, now in the possession of the Entomological Society of London. The "larva was taken on the Lime-tree, December 12."
 - Also observed by A. Grote, Esq., and figured among his original drawings.
- Genus Leptocircus. Add as syn. Lamproptera, G. R. Gray, Griffith's edit. Cuvier, Ins. 11, t. 102, f. 4 (1832).
- 88. No. 178. "Common at Dacca. 1845, and at Darjeeling, being partial to the feathery scarlet-flowered plant about which they hover, and may be easily caught by the hand, as its flight is heavy."—(Captain Mortimer Slater's Notes, p. 390.)
- 91. No. 187. The transformations of the female of this species were also observed by Mrs. Hamilton at Moulmein, and figured among that lady's drawings.
- 97. No. 198. Add page 104 and plate 45.
- 99. No. 202. Captain Mortimer Slater, in his MS. "Notes," p. 420, remarks: "This butterfly is very active, and difficult to eatch, flying in and out of deep forest shades with great velocity, and generally high."
- 105. No. 211. "Very common throughout the Bengal presidency; the larva feeding on the Lime, Orange, and "Bel" tree, and has the two processes (above the head) very pliable and completely retractile. The scent of these processes is that

Page.

- of very rotten oranges, and is overpowering in the extreme, and does not leave the hand, when once infected, for many hours, even after several washings. The larva, when touched, shrugs up its head, and only displays the nauseous filaments when much or repeatedly irritated, and then it endeavours to smear the irritating body by dragging them over and about it."—(Captain Mortimer Slater, MS. "Notes," p. 438.)
- The transformations were also observed by A. Grote, Esq., and by Mrs. Hamilton, which lady states that "the larva of this butterfly feeds on the Lime and Citron; the eggs are laid singly on the tips of the leaves, and generally on the upper-side. The larva is at first of a greenish-brown."
- 113. No. 227. The larva and pupa of *Papilio Eurypylus* are figured on Plate XII., fig. 10, 10a, from A. Grote, Esq., of Calcutta.
- 126. No. 249. The transformations of *Danais Chrysippus* were also observed by Lady Gilbert, and figured in Vol. II., p. 33, of her ladyship's drawings. "Feeds on the Madar, *Asclepias gigantea*. The larva taken July 14th, changing on the 15th, and the imago coming forth on the 23rd."
 - No. 256. Add specimens b. c. 3. Borneo. Presented by Edwin Shepherd, Esq.
- 131. No. 262. The transformations of Euplica Core were also observed and figured by Captain Mortimer Slater.
- 142. No. 288. The larva and pupa of Junonia Almana are figured on Plate XII., fig. 12, 12a, from A. Grote, Esq., of Calcutta.
- 163. Genus Neptis. Vide monograph in Proc. Zool. Soc.
- 167. No. 345. Dele the letter h in Jumbah.
- 169. Genus ATHYMA. Vide monograph in Proc. Zool. Soc.
- 185. Genus Adolias. Vide monograph in Proc. Zool. Soc., where the new species are figured.
- 188. No. 379. The larva and pupa of Adolias Lubentina are figured on Plate XII., fig. 13, 13a, from A. Grote, Esq., of Calcutta.
- 207. No. 424. The larva and pupa of Nymphalis Baya are figured on Plate XII., fig. 14, 14a, copied from Mrs. Hamilton's original drawings.
- No. 431. The larva and pupa of Discophora Tullia are figured on Plate XII., fig. 15, 15a, from A. Grote, Esq., of Calcutta.
- 222. No. 461. The transformations of this species also observed vol. 1.

IV APPENDIX.

Page.

and figured by Lady Gilbert, who states: "Feeds upon grass. Larva taken August 1st, changing to a pupa on the 5th, and the imago emerging on the 14th."—(Vol. I. p. 41.)

237. No. 511. "Not uncommon at Dacca, 1845. Flies in a weak, hovering manner, generally over the deep damp pits formerly used by the muslin manufacturers, and many years deserted." —(Captain Mortimer Slater's Notes, p. 248.)

OF

GENERA AND SPECIES.

VOL. 1.

v. v.v. p	ARICHERUM, CHIMANII, I MILITED	
124	Alcibiades, Fahr., Papilio	116
80	Alcidice, Godart, Danais	126
228	Alcinous, Klug, Papilio	95
178	Alciope, Godart, Argynnis	151
168		151
228		159
100		159
101		56
266		56
89	Alea, Hübner, Terpsichrois	131
251	Alecto, Linn., Sphinx	275
155		25
185		242
185		142
47	Alopia, Godart, Danais	131
272	Alpheda, Godart, Nymphalis	188
194	Alphenor, Fabr., Papilio	102
185		253
188	Amara, Moore, Ismene	247
114	AMARYSSUS, Dalman	89
25	Amata, Fabr., Papilio	67
66	AMATHUSIA, Fabr 208,	209
154	AMAURIS, Hübner 89.	121
53	Ambalika, Moore, Adolias	192
249		248
114		223
83		201
101		39
91	AMBLYPTERUS, Hubner	265
116		265
		250
		146
		49
		274
		86
		88
		22
		49
		210
100	Anais, Bougainville, Danais	61
	\mathbf{a}	
	80 228 178 168 228 100 101 266 89 251 185 47 2194 188 114 25 266 154 289 2114 83 1191	Alcibiades, Fabr. Papilio Alcidice, Godart, Danais Alcidice, Godart, Danais Alcidice, Godart, Argynnis Alcidice, Godart, Argynnis Alcidice, Godart, Argynnis Alcidice, Godart, Argynnis Alcidice, Cramer, Papilio Alexi, Mone, Sphinx Alecto, Linn, Sphinx Aldica, Fabr., Papilio Allica, Fabr., Papilio Almana, Linn., Papilio Alpheda, Godart, Nymphalis Alpheda, Godart, Nymphalis Alpheda, Godart, Nymphalis Alpheda, Godart, Papilio Alpheda, Godart, Papilio Alpheda, Godart, Papilio Alpheda, Godart, Papilio Amara, Moore, Ismene Ambasa, Moore, Mclanitis Ambica, Kollar, Apatura Amblytodia, Horgf. Ambulyx, Boisd. Amerta, Moore, Nisoniades Amerta, Moore, Papilio Amphrisius, Cramer, Papilio Amphrisius, Swainson Amphrisius, Swainson Amphrisius, Cramer, Papilio Amyntas, Fabr., Papilio Amyntas, Fabr, Papilio Amyntas, Fabr, Papilio Amyntas, Fabr, Papilio Amyntas, Bougainville, Danais

Ananta, Moore, Neptis p. 166	Astenous, Fabr., Papilio p. 87
ANAPHÆA, Hübner 70	Asterie, Cramer, Papilio
Anapita, Moore, Mycalesis 232	Astina, Horsf., Papilio 89
Anartia, Hübner	Astorion, Westwood, Papilio 98
Anceus Cramer, Papilio 101	ASTRAPTES, Hübner 244
— Cramer, Sphinx 270	Astyanax, Fabr., Papilio 103
Androcles, Boisd., Thecla 29	Asura, Moore, Athyma 171
Androgeos, Cramer, Papilio 99 Anexibia, Hübner, Ixias 67	Atalanta, Cramer, Papilio 138 Ataxus, Boisd., Thecla 31
Anexibia. Hübner. Ixias 67	Ataxus, Boisd., Thecla 31
Angelica Cramer, Papillo 138	ATELLA, Doubleday 151
Annada, Moore, Erebia 226	Athamas, Drury, Papilio 205
Anomala, Kollar, Acrea 136	Athamis, Hübner, Eriboea 205
Anops, Boisd 52	ATHYMA, Westwood 169
Anosia, Hübner 121	Atratus, Horsf., Lycæna 22
Anosia (Boisd.), Moore, Adolias. 189	Atymnus, Cramer, Papilio 51
Anteos, Hübner 59	Auge, Cramer, Papilio 158
Anthocharis, Doubleday 69	Augiades, Hübner 250
Anthrax, Boisd., Euplea 131	Augias, Linn., Papilio 251
Anticrates, Doubleday, Pavilio 115	Aurora, Cramer, Papilio 68
Antigone, Cramer, Papilio 159 Antilope, Cramer, Papilio 160	Aurota, Fabr., Papilio 72
Antilope, Cramer, Papilio 160	Automedon, Boisd., Deilephila 269
Antiopa, Linn., Papilio 137	AUTONEMA, Boisd, 148
Antiphates, Cramer, Papilio 116	Autothisbe, Hübner, Delias 82
Antiphus, Fabr., Papilio 94 1	Avatar, Moore, Eronia
Antonoë, Cramer, Papilio 81	Avatara, Moore, Satyrus 229
Aonis, Cramer, Papilio 139	Aventina, Cramer, Papilio 122
Aoris, Doubleday, Cirrochroa 149	Avia, Fabr., Papilio
APATURA, Fahr 158, 201	Badra, Moore, Goniloha 245
APATURA, Fabr	Bajadeta, Moore, Cirrochroa 150
Aphnœus, <i>Hübner</i> 30, 37	Baldus Fuhr Papilio 935
APHRODITE, Hübner	Balidia, Boisd., Thestias 67 Banksia, Fabr., Papilio 222
Apiades, Menetries, Adolias 195	Banksia, Fabr., Papilio 222
Apidanus, Cramer, Papilio 39	BASIANA Walker
Aporia, Hübner	Basilissa, Cramer, Papilio 133
Applas, Hübner 70	Batara, Moore, Ismene
Apriate, <i>Hübner</i> , Delias	Bathyeles, ZinkSom., Papilio 114
Aratus, Cramer, Papilio 22	Baya, Moore, Nymphalis 207
Arbates, Zinken-Sommer, Papilio 99	Bebryce, Hübner, Ixias 66
Arcadia, Cramer, Papilio 219 Arcensia, Cramer, Papilio 223	Bela, Moore, Melanitis 223
Arcesilaus, <i>Cramer</i> , Papilio 223 Arcesilaus, <i>Fabr.</i> , Papilio 213	Belenois, Hübner 70
Arcesilaus, Fabr., Papilio	Belenus, Hühner, Heliophorus 29
Arcuatum, Horsf., Macroglossa. 262	Belia, Westwood, Hestia 135 Belis, Cramer, Sphinx 263
Arcte, Cramer, Papilio 216	Belisama, Fahr., Papilio
Argeus, Hübner 270	Belladonna, Cramer, Papilio 78
ARGYNNIS, Fabr 155	Belladonna, <i>Cramer</i> , Papilio 78 Benjaminii, <i>Guérin</i> , Thymele 248
Argynnis, Deury, Papilio 156	Bernardus, Fabr., Papilio 206
Argynnis, <i>Drury</i> , Papilio 156 Argyrus, <i>Sparm.</i> , Papilio 156	Bernardus, Fabr., Papilio 206 Beroë, Cramer, Papilio 216
RGYRONOME, Hübner 155	Bhadra, Moore, Enope 227
RHOPALA, Boisd 39	Bhagava, Moore, Goniloba 246
ria. Moore. Hesperia 254	Bhairava, Moore, Debis 217
ARIADNE, Horsf 144 riadne, Linn., Papilio 144	Bianor, Cramer, Papilio 110
riadne, Linn., Papilio 141	Biblia Hübrer 239
RISBE, Hübner 89	Biblina, Godart, Cethosia 154
rjuna, Horsf., Papilio 107	Biblis, Fabr141, 170, 236
rne, Klug, Pontia 68	Biblis, Drury, Papilio 153
rsinoë, Cramer, Papilio 145	Bisaltide, Cramer, Papilio 209
truna, Moore, Argynnis 156	Bisaltide, Cramer, Papilio 209 Bisecta, Horsf., Deilephila 278
ASCANIDES, Hübner 89	Blanda, Boisd., Terras 64
Ismara, Moore, Hesperia 253	Boerhaviæ, Fubr., Sphinx 276
Assimilis, Linn., Papilio 160	Boeticus, Ling. Papilio 23

Boisduvalii, Moore, Miletus p. 19	Chiron, Cramer, Sphinx p. 269
— G. R. Gray, Adolias 198	Chirona, G. R. Gray, Danais 125
Bolina, Linn., Papilio 158	Chirona, G. R. Gray, Danais 125 Chitra, Horsf., Theola 51
Brachyglossa, Boisd 266	CHLORIPPE, Boisd 201
Brahma, Moore, Ilerda 29	Chlorisses, Swainson 89
Brahmina, Boisd., Zeritis 37	Chromus, Cramer, Papilio 244
Brahminus, Blanch., Satyrus 229	Chryseis, Drury, Papilio 56
Brenthis, Hübner 155	Chrysippus, Linn., Papilio 126
Buddha, Moore, Calinaga 163	Chrysomallus, Hübner, Zesius 33
Bulis, Boisd., Anops 53	Chrysophanus, Hübner 27
Busiris, Boisd., Deilephila 270 Cadma, Boisd., Theela 28	Cicero, Fabr., Hesperia 252
Cadma, Boisd., Thecla	Cinnara, Moore, Hesperia 255
Cælænorrhinus, Hübner 250	Cinyra, <i>Cramer</i> , Papilio 53 Cipræa, <i>Fabr.</i> , Papilio 67
Caius, Fabr., Hesperia 21	Cipræa, Fabr., Papilio
Calais, Cramer, Papilio 67	Circe, De Cerisy, Acherontia 267
CALAIDES, Hübner 89 CALINAGA, Moore 162	Cirrochroa, Doubleday 149
	Clagia, Godart, Argynnis 149
Callidryas, Boisd 85	Clarissa, Boisd., Terinos 149
Callirhoë, Hübner, Hamadryas 138	Clemanthe, Doubleday, Pieris 77
Callosune, Doubleday 68	Cleona, Cramer, Papilio 123
Calybe, Godart, Vanessa 141	CLEROME, Boisd 213
CALYMNIA, Boisd 266	Cloanthus, Westwood, Papilio . 112
Cama, Moore, Athyma	Clotho, Drury, Sphinx 277
Camadeva, Westw., Thaumantis. 216	CLYTIA, Swainson
Camdeo, Doubleday, Amblypodia 41	Clytia, Linn., Papilio 92
Canens, Hübner, Faunis 213	Chejus, Fabr., Hesperia 22
Carduclis, Cramer, Papilio 139	Cocyta, Fabr., Papilio 191
Cardui, Linn., Papilio	Cocytina, Horsf., Aconthea 193
Cashmirensis, Kollar, Vanessa 137	Cocytius, Hubner 268
CASTALIA, Boisd 199	Cocytus, Fabr., Papilio 194
Castnius, Hübner 247 Castor, Westwood, Papilio 93	Cœlites, Boisd
	Coèncos, Halmer, Euchloë 69
Boisd., Deilephila 273	Collas, Fabr
CATARGYRIA, Hubner 201 CATHÆMIA, Hubner 70	Coloris, Hubber
	Columbina, Cramer, Papilio 152 Columella, Cramer, Papilio 166
Catilla, Cramer, Papilio 57 CATOPHAGA, Hübner 70	Columena, Hubner, Acca 167
CATOPSILIA, Hübner 55	Colutea, Rossi, Papilio 24
Caumas, Godart, Satyrus 219	Consimilis, Westwood, Hestina . 161
C. aureum, Lina. Papilio 138	
C. aureum, Linn., Papilio 138 Celeuo, Cramer, Papilio 24	Constantia, Cramer, Papilio 221 Convolvuli, Linn., Sphinx 267
Celerio, Fabr., Papilio 24	Coon, Fabr., Papilio 95
— Linn., Sphinx 274	Core, Cramer, Papilio 131
Celinde, Stoll, Papilio	Coresia, Hubner, Hypolimnas . 197
Centaurus, Fabr., Papilio 40	Coresia, <i>Hubber</i> , Hypolimnas 197 Coreta, <i>Godart</i> , Danais 132
Centaurus, Fahr., Papilio 40 Cephea, Cramer, Papilio 135	Coriolanus, Fabr., Hesperia 243
Сернохорея, <i>Hubner</i> 260, 261	Cornelia, Fabr., Papilio 58
Cervina, Walker, Basiana 265	Coronea, Cramer, Papilio 82
Cethosia, Fabr 153	Coronis, Cramer, Papilio 76
CHEROCAMPA Dunont 974	Corydon, Cramer, Papilio 26
Chandica, Moore, Debis 219	Corydon, <i>Cramer</i> , Papilio 26 Coryta, <i>Cramer</i> , Papilio 144
Chandra, Moore, Castalia 200	Corythus, Boisd., Macroglossa 262
Chandrasa, Moore, Achlyodes 251	Crameri, Moore, Eupkea 129
Chaon, Westwood, Papilio 102	Crastia, Hubber 126
—— Boisd., Ismenc 249	Cresphontes, Fabr., Papilio 105
Chara, Westwood, Papilio 98	CRETEUS, Hubner 214
CHARAXES, Ochsenheimer 204	Cretica, Boisd., Deilephila 275
Charonia, Drury, Papilio 137	Crino, Fabr., Papilio 109
Chaya, Moore, Hesperia 255	Crishna, Westwood, Cyllo 221
Chenu, Guérin, Satyrus 235	Crisia, Hubner, Euptychia 226
Childreni, G. R. Gray, Argynnis 157	Crithoë, Boisd., Pieris 79

Crocale, Cramer, Papilio p. 57	Dissimilis, Line, Papilio p. 91
Curius Fahr. Papilio 85	Divergens, Walker, Macroglossa 263
Cyane Fabr. Papilio 100	Divodasa, Moore, Hesperia 255
CYCLOPIDES, Hübner 250	Dodonea, Boisd., Amblypodia . 43
Cycnus, Westwood, Enispe 212	Dolichus, Westwood, Cherocampa 273
CYLLO, Boisd 221	Dolon, Westwood, Charaxes 206
CYMOTHOE, Hübner 185	Dorimond, Stoll, Papilio 39 Dorippa, Boisd, Danais 123
CYNTHIA, Fabr	Dorippa, Boisd., Danais 123
Cyrene, Westwood, Deilephila 277	Doris, Cramer, Papilio 234
CYRESTIS, Boisd 146	DORITIS. Fabr 84
Cyrus, Fabr., Papilio 104	Doubledayii, Boisd., Adolias 196
Daha, Moore, Nisoniades 250	Westwood, Aconthea 198
Damaris, G. R. Gray, Pieris 225	DOXOCOPA, Hübner 201
Damoëtes, Fabr., Papilio 23	Drancus, Cramer, Sphinx 277
Dan, Fabr., Hesperia 253	Drona, Horsf., Terias 65
Danaë, Fabr., Papilio 69	Druna, Moore, Hesperia 254
DANAIDA Latr 121	Drupadi, Horsf., Emesis 244
DANAIDA, Latr 121 DANAIS, Latr 121, 126	Drusia, Cramer, Papilio 231
Danaus, Latr 121, 126	DRUSILLA, Swainson 214
Danava, Moore, Limenitis 180	Dryas, Boisd., Smerinthus 264
Danava, Moore, Limenitis 180 Danna, Moore, Pyrgus 249	Dudu, Doubleday, Limenitis 180
Daos Roise Idea 124	Dupo, Hübner 270
Daos, Boisd., Idea	Duro, Hübner
Daplidice, Linn., Papilio 75	— Kollar, Mclitæa 242
Daplidice, Linn., Papilio 75 DARAPSA, Walker 271	Durvasa, Moore, Pieris 73
Daraxa, Doubleday, Limenitis 180	Dusara, Horaf., Melanitis 238
Darsius, G. R. Gray, Ornithoptera 87	Dynamene, Klug, Pontia 68
Dasa, Moore, Ismene 248	Eacus, Latr., Hesperia 253
Dasarada, Moore, Papilio 96	EANTIS Roise
DERIS. Boisd 216	Eborea, Cramer, Papilio 69
Decora, Boisd., Amnosia 146	Eborea, Cramer, Papilio 69 Echerius, Stoll, Papilio 243
Deilerhila, Ochs 272, 273	Echidna, De Haan, Papilio 92
Deione, Westwood, Euplea 132	Edmondi, Bougainville, Danais 125
Erichson, Cynthia 145	Edusa, Fabr., Papilio 62
Deiopeia, Donovan, Papilio 83	Ega, Boisd., Pieris 72
Delessertii, Guérin, Papilio 91	Egeon, Boisd., Emesis 242
Delias, Hübner 70	Egialea, Cramer, Papilio 79
Delphis, Doubleday, Charaxes 206	Egista, Cramer, Papilio 152
Demeter, Doubleday, Nemcobius 242	Eleonora, Boisd., Pieris 71
Demolion, Cramer, Papilio 105	ELIBIA, Walker 273
Dentatus, Cramer, Sphinx 264	Elpis, Godart, Polyommatus 24
Dercas, Boisd	Elusine, Cramer, Papilio 127
Derma, Kollar, Adolias 193	ELYMNIAS, Hübner 144, 236 Emarginata, Horsf., Sphinx 268
- Moore, Gonilobia 245	Emarginata, Horsf., Sphinx 268
Descombesi, Boisd., Pieris 81	EMESIS, Horsf 242
Deva, Moore, Amblypodia 46	ENISPE, Doubleday 212
DIADEMA, Boisd	ENODIA, Hübner 228
Dichroa, Kollar, Limenitis 199 Didonis, Hübner 126	ENOPE, Moore 228
DILIPA, Moore	Envo, <i>Hübner</i>
Diocippus, Cramer, Papilio 158	Epargyreus, Hübner 244
linelas Roied Thomans 950	Epicharis, Godart, Pieris 80
Diocletianus, Fabr., Papilio 126	Epicles, Godart, Polyommatus 29
Diores. Doubleday, Thaumantis 215	EPIGEA, Hübner 226
monums namer Papino 94	EPIGEA, Hübner
DIPSAS, Doubleday 30. 39	Epilais, Hübner, Doxocopa. 207
DIFSAS, Doubleday 30, 39 DIRA, Hübner 227 Dirtea, Fabr., Papilio 198	Epiminthia, Boisd., Coslites 225
Dirtea, Fabr., Papilio 198	Epimuta, Boisd., Amblypodia 42
inscistriga, watker, Macrosiia 200	EPINEPHILE, Hübner 227, 228
Disconthea, Godart, Nymphalis. 185	Epiona, G. R. Gray, Adolias 196
DISCOPHORA. Boisd 211	Epius, Fabr., Papilio 106

Erato, Boisd., Emesis p. 243	Ganga, Moore, Abrota p. 17
EREBIA, Dalman 926	Garuda, Moore, Adolias 18
ERGOLIS, Boisd 144	Garuda, Moore, Adolias 18 Gaura, Horaf., Idea 13
ERIBOEA, Hübner 204	Genutia, Cramer, Papilio 12
Erigone, Cramer, Papilio 139	Geometricum. Horsf., Macroglos-
Eriphile, Cramer, Papilio 159	sum 26
ERITES, Boisd 229	GERYDUS, Boisd 18
Erithonius, Cramer, Papilio 105	Gilia Roisd Macroplossa 969
Eronia, Hübner	Glaphyra, Godart, Pieris. 71 Glaucippe, Linn., Papilio 60 Gliciria, Cramer, Papilio 71 Glypping C. P. Gray, Papilio 17
Erosine, Cramer, Papilio 170	Glaucippe, Linn., Papilio 60
Erylus, Godart, Polyommatus 50	Gliciria, Cramer, Papilio 78
Erymanthis, <i>Drury</i> , Papilio 150	Giycerion, G. M. Gray, Lapino 110
Esa, Moore, Hesperia 254	Gnoma, Fabr., Papilio 50
Eson, Cramer, Sphinx 276	Godartii, G. R. Gray, Adolias 194
Esoptria, Hübner 158	Gokala, Moore, Melanitis 224
Etolus, Cramer, Papilio 38	GONEPTERYX, Leach 59
— Fabr., Papilio 49	GONIAPTERYX, Westwood 59
Etrida, Boisd., Anthocharis 69	GONILOBA, Westwood 244
Eucharis, Fabr., Papilio 68	Gopala, Moore, Goniloba 246
—— Drury, Papilio 80	Gortys, Hübner, Xylophanes 278
EUCHLOE, Hübner 68	Gotama, Moore, Mycalesis 238
Eudamippus, Doubl., Charaxes 206	Grammica, Roisd., Danais 122
Eudora, G. R. Gray, Hestia 134	Grapta, Kirby
Eugonia, Hübner 136, 137	Gyas, Westwood, Papilio 110
Eumenis, Hübner	Gyrans, Boisd., Macrogiossa 202
Eumolphus, Cramer, Papilio 41	Halitherses, Doubleday, Euripus 199 Hallirothius, Westwood, Euripus 199
Eunice, Godart, Danais 129	Hallirothius, Westwood, Euripus 199
EUPHÆADES, Hubner 89	HAMANUMIDA, Huoner 242
Euphanes, Esper, Papilio 204	Hara, Moore, Precis
Euphranor, Doubl., Amblypodia 31	Hardwickii, G. R. Gray, Parnassius 84
Euphrone, Westwood, Nymphalis 160 EUPLŒA, Fabr. 121, 126	Harina, Horsf., Terias 64
EUPLŒA, Fabr 121, 126	Harisa, Moore, Ismene 247
EUREMA, Hübner 63	HEBOMOIA, Hübner 60
EURIPUS, Doubleday 198	Hecabe, Linn., Papilio 63
Europa, Fabr., Papilio 216	Hector, Linn., Papilio 93
Eurynome, Westwood, Limenitis 169	Hector, Linn., Papilio 98 HECTORIDES, Hübner 89
Eurypilus, Linn., Papilio 113	
	Hegesippus, Cramer, Papilio 129 Helenus, Linn., Papilio 10
EUTHALIA, Hübner	Heliacon, Fahr., Papilio 8
Evagete, Cramer, Papilio 77	Heliodore, Fabr., Papilio 16
Evan, Doubleday, Papilio 110	Helus, Cramer, Papilio 4
Evelina, Stoll, Papilio	HEMARIS, Dalman 26
Fabius, Fabr., Papilio 204	HERACLIDES, Hübner 8
Faro, Cramer, Sphinx 263	Heri, Moore, Mycalesis 23
Fatih, Kollar, Hesperia 252	HERONA, Doubleday 11
Fatna, Boisd., Emesis 243	Hesione, Cramer, Papilio 23
FAUNIS, Hübner 213	Hespera, Fabr., Sphinx 26
Faunta, Olivier, Pieris	HESPERIA, Fabr 259
Flacilla, Doubleday, Vanessa 137	HESTIA, Hühner 121, 13- HESTINA, Westwood 16
Flegyas, Cramer, Papilio 242	HESTINA, Westwood
Folus, Cramer, Papilio 252 Francia, G. R. Gray, Adolias 197	Hierta, Fubr., Papilio 14
Franciæ, G. R. Gray, Adolias 197	Hierte, Hübner, Pontia 8. Hilaria, Cramer, Papilio 5
Francisca, Cramer, Papilio 230	Hilaria, Cramer, Papilio 5
Francki, Godart, Nymphalis 148	Hilda, Westwood, Neorina 22
Fylla, Boisd., Emesis 244	Himachala, Moore, Theope 23
Gambrisius, Fabr., Papilio 148	HIPPARCHIA, Fabr 22
Gana, Moore, Goniloha 245	Hippia, Fabr., Pieris
Ganesa, Doubleday, Papilio 107 — Moore, Amblypodia 44	Hippo, Hubner 221
Ganescha, Kollar, Amathusia 146	Hippo, Crumer, Papilio 7. Hippotion, Hübner 27.
Composition accepts, alliabilities of 170	

Hordonia, Stoll, Papilio p. 164	Issaa, G. R. Gray, Argynnis p.	156
Horsfieldii, G. R. Gray, Pieris 78	ISSORIA Hubner	15
- Swainson, Drusilla 214	Issoria, <i>Hubuer</i> , Telchinia Iswara, <i>White</i> , Papilio	136
1) // () () ()	Iswara, White, Papilio	10
— No Certsy, Smerminus 264 — Moore, Miletus 19 Hübneri Moore Euplea 128	ITANUS, Doubleday	183
Hübneri, Moore, Eupleea 128	ITHOBALUS, Hühner	89
Hübneri, Moore, Euplea	Iva, Moore, Adolias	19
HYADES, Boisd	Ixias, Hubner	6
Hyagriva, Moore, Yphthima 236	Jacintha, Fabr., Papilio	159
Hyale, Linn., Papilio 62	Jacquemontii, Boisd., Satyrus	229
Hyas, Boisd., Lophura 263	Jafra, Godart, Myrina	47
Hylas, Hübner, Marpesia 146	Jahry Mage Adolice	19:
Hylas, Hübner, Marpesia 146 — Linn., Sphinx 260	Jahnu, Moore, Adolias Jaina, Moore, Ismene	247
Hylax, Fabr., Hesperia 19	Talindan Hand Amblematic	5(
Hyles, Hubner 273	Jalindra, Horsf., Amblypodia Janaka, Moore, Papilio	97
Hyloicus, Hübner 268	Janaka, 20007", Papino	
	Janardana, Moore, Mycalesis	234
	Jangala, Horsf., Amblypodia	4(
HYPANIS, Boisd	Japetns, Cramer, Papilio	24.
Hyparete, Linn., Papilio 80	Jarbas, Fubr., Hesperia	32
Hypatada, Boisd., Theela 45 Hypenor, Godart, Papilio 95	Jasia, Strainson	20
Hypenor, Godart, Papilio 95	Jasonia, Westwood, Hestia	13
Hyperbius, Linn., Papilio 155	JASONIADES, Hübner	89
Hypolimnas, Hubner 158	Jayadeva, Moore, Ismene	248
Hypomenes, Kaden, Argynnis 198	Jina, Moore, Athyma	179 77
Hypothoüs, Cramer, Sphinx 271 Hyppocla, Cramer, Papilio 153 Hypselis, Godart, Vanessa 153	Judith, Fabr., Papilio	77
Hyppocla, Cramer, Papilio 153	Inguitha Cramer Papillo	57
Hypselis, Godart, Vanessa 153	Juliana, <i>Ceamer</i> , Papilio Jumba, <i>Moore</i> , Neptis	145
Tapis, Godart, Nymphalis 192	Jumba, Moore, Neptis	167
Ida, Cramer, Papilio 142	JUNONIA, Hubner	139
IDAIDES, Hulmer	Justinia, Cramer, Papilio	231
Idamene, Godart, Vanessa 143	Juventa, Cramer, Papilio	122
1DEA, Fabr 134	Jynx, Hubner, Elmynias	237
Idea, Stoll, Papilio 135	Kallima, Doubleday	208
Ideorsis, Horsf 133	Kamala, Moore, Argynnis	150
IDMAIS, Boisd 67	Kamara, Moore, Elymnias	239
ILERDA, Doubleday 28	Kandarpa, Horsf., Lycana	2;
Thades, Hübner S9	Kansa, Moore, Debis	220
Ilithyia, Drury, Papilio 239	Kessuma, Horsf., Theela	37
Imperialis, Hope, Temopalpus 86	Klugii, Moore, Euplæa	130
Inachis, Hubner 136	Klugius, Zinken-Sommer, Morpho	215
Inachis, Boisd., Amathusia 208	Kotzebuæ, Esch., Papilio	-95
Inara, Doubleday, Limentis 173 Inaria, Cramer, Papilio 158	Krishna, Moore, Papilio	108
Inaria, Cramer, Papilio 158	Kumara, Moore, Hesperia	255
Indica, Doubleday, Pieris 61	Ladon, Cramer, Papilio	248
Indra, Moore, Pieris 74	LAERTIADES Hillinger	-89
Indrani, Moore, Hesperia 253	Leta, Boisd., Terias	65
Infernalis, Westwood, Sesia 261	Lais, Linn., Papilio	237
Inquilina, Harris, Deilephila 274	Laius, Cramer, Papilio	21
Insularis, Horsf., Phædra 53	LAMPROSURA, Boisd	85
IPHIAS, Boisd 60	Laodocus, De Haan, Papilio	91
IPHICLIDES, Hübner 85, 89	LAOGONA, Boisd	152
Iphigenia, Cramer, Papilio 159	Laomedia, Linn., Papilio	140
	Laomedon, Cramer, Papilio	100
Iphita, Cramer, Papilio 143 Irava, Moore, Hesperia 254	Laomedon, Cramer, Papilio Lapithis, Boisd., Theela	48
Isa, Moore, Hestina 161	Larymua Doubleday Limenitis	172
Isana, Kollar, Satyrus 217	Larymna, Doubleday, Limenitis Lasinassa, Cramer, Papilio	159
ISMENE, Swainson 247		227
Ismene, Cramer, Papilio 223	Lathonia, Kollar, Argynnis	156
Doubleday, Limenitis 180	Lathyrus, Boisd., Deilephila	274
Isocrates, Fabr., Hesperia 33	Latreillei, Donovan, Papilio	97
Isoples. Hühner 274	Lea. Doubleday, Pieris	77

Leda, Linn., Papilio p. 2	222	Malaya, Horsf., Lycaena p.	26
	04	Mahka, Horsf., Theela	37
Leis, Hübner, Catophaga	37		231
Lemonias, Linn., Papilio 1	39	Mamerta, Cramer, Papilio	231
	213		165
Leos, Guéria, Symathus	18	MANCIPIUM, Horsf 67,	
	213		233
Lepita, Moore, Libythea 2			255
	85	Manilia, Cramer, Papilio	159
			199
			66
		Marianne, Cramer, Papilio	
			206
		MARMESSUS, Hübner	51
			169
	38	Mazares, <i>Doubleday</i> , Euplora	127
	70	Medusa, Dr Cerisy, Acherontia :	267
Leuconoë, Erichson, Hestia 1	35	Megarus, Westwood, Papilio	-90
LEUCOPHLEBIA, Westwood 2		Meges, Zinken-Sommer, Papilio	85
Leucothoc, Linn., Papilio 1			219
LEXIAS. Boisd 2	903		226
	73	Melampus, Cramer, Papilio	32
	239	Melaneus Craner Panilio	$12\overline{3}$
	73	Melaneus, <i>Cramer</i> , Papilio	91
	70	Melanippus, Cramer, Papilio	125
LIMENITIS, Fabr 163, 170, 1			236
			128
Lineata, Fabr., Sphinx 2			121
	65		159
		Memercus, Godart, Papilio	89
Liria, Fabr., Papilio 1	59	Memnon, <i>Linu</i> ., Papilio	99
			216
Lisias, Fabr., Papilio		Menelaides, Hubber	89
Livornica, Esper, Sphiux 2	74	Menetho, <i>Fahr.</i> , Papilio	211
Lohita, Horsf., Amblypodia	38	MERINTHUS, Meigen S	264
Longinus, Fabr., Hesperia	45	Merione, Cramer, Papilio	144
Longinus, Fabr., Hesperia 2		Mesentina, Cramer, Papilio	72
			150
	51	Mestor, Hubner, Iliades	99
		METOPSILUS, Hubner	274
	77		164
			131
	15		133
	16	Microsco Hubana	18
		Miletus, Hubner	264
LYCENA, Fabr		Minereus, G. R. Gray, Papilio	97
			147
			231
			228
		Minos, Cramer, Papilio	.87
Lyncida, Cramer, Papilio	71		158
Lysandra, Cramer, Papilio 2	35	Mitra, Moore, Euplica 1	127
Macarcus, Godart, Papilio	90	Mera, Hubner	511
	11	Moorei, Boisd., Ambulyx 2	266
	61	Morgiana, Westwood, Apatura 2	109
			269
			267
Maculatum, Horsf., Macroglossum 2			133
	16	MURTIA, Hubner	55
Madura, Horsf., Hipparchia 2	29	Mutius, Fabr., Papilio,	102
Mahesa, Moore, Athyma 1	76		230
Makuta Haref Hinnarchia 9	26	Mycena Cramec Papilio.	993

8 index

MYLOTHBIS, Hübner $\dots p. 60, 70$	Ocyale, Hübner, Junonia p. 14
MYRINA, Godart47, 51	Ocys, Hübner, Hippotion 27
Myrrha, Godart, Libythea 240	Odana, Godart, Morpho 21
Nada, Moore, Debis 218	Edipodea, Swainson, Ismene 24
Naga, Moore, Philampelus 271	Encis, Hübner 22
Nakula, Moore, Apatura 203	Enone, Linn., Papilio 14
Nama, Doubleday, Pieris 76	Oldenlandiæ, Fabr., Sphinx 273 Onyx, Boisd., Thecla 3
—, Boisd., Diadema 162	Onyx, Boisd., Thecla 34
Namouna, Doubleday, Pieris 71	Opalina, Kollar, Limenitis 17.
, Doubleday, Apatura 201	OREAS, Hübner 216, 22
Nandina, Moore, Neptis 168	OREINA, Westwood 220
Narada, Horaf., Amblypodia 39	Orestes, Fabr., Papilio
Naranata, Moore, Pamphila 251	OREUS, Hübner 27
Narasingha, Moore, Yphthima 236	ORINOMA, Doubleday 225
Nasaka, Horsf., Thecla 37	Orithyia, Linn., Papilio 14
Nata, Moore, Neptis	ORNEUS, Hübner 270
Neduna, De Haan, Cyrestis 147	ORNITHOPTERA, Boisd 80
Nedymond, Cramer, Papilio 50	ORONTES, Swainson 250
Necsius, Zinken-Sommer, Papilio 89	ORPHEIDES, Hübner
Nofte Chames Deville 179	
Nefte, Cramer, Papilio 173	
Neilgherriensis, Guérin, Satyrus 217	Padma, Kollar, Satyrus 229
Nemertes, Hübner, Salpinx 129	Paduka, Moore, Limenitis 179 Palephates, Westwood, Papilio 99
Neombo, Boild., Pieris 72	
Neophron, Boisd., Emesis 243	Palguna, Moore, Adolias 190
NEORINA, Westwood 225	Pallicosta, Boisd., Deilephila 276
NEPHELE, Hübner 268	Pammon, Linn., Papilio 10- Pamphila, Fabr 250
Nephte, Fabr., Papilio 56	PAMPHILA, Fabr 250
Nephte, Fabr., Papilio	PANACRA, Walker 269
NEPTIS, Fabr 163	Panava, Westwood, Thecla 28
Neriene, Fischer, Colias 62	Panda, Godart, Pieris 71
Nerii, Linn., Sphinx 272	Pandava, Horsf., Lycena 25
Nerina, Fabr., Papilio. 159 Nerissa, Fabr., Papilio. 72 Nero, Fabr., Papilio. 70	Pandava, Horef., Lycæna 25 Pandia, Moore, Hesperia 25
Nerissa, Fabr., Papilio 72	Pandione. Hubner. Pieris 73
Nero, Fabr., Papilio 70	Pandita, Moore
Nesimachus, Boisd., Adolias 197	Pandocus (Boisd.), Moore, Yphthi-
Nessus, Drury, Sphinx 276	l ma 93:
NESTORIDES, Hühner 89	Pandu, Horsf., Symetha 18
Niamus, Godart, Papilio 155	Pann, Fabr., Hesperia 34
Nicea, G. R. Gray, Adolias 197	Panope, Linn., Papilio 99
Nila, Horsf., Lycæna 21 — Kollar, Thecla 44	PANOPEA, Hübner 158
- Kollar, Thecla 44	Panopus, Cramer, Sphinx 266
NINA, Horsf	PAONIAS, Hübner 264
Nina, Fabr., Papilio	PAPHIA, Fabr 145, 204
Nipalensis, G. R. Gray, Pieris 75	Papilio, Linn 89
— Doubleday, Gonepteryx 59	Paralekta, Horsf., Paphia 208
Niphe, Linn., Papilio 155	Parallelis, Horsf., Smerinthus 264
Nisoniades, Hübner 250	PARARGE, Hübner 227
Nissa, Kollar, Theela 46 Nivea, Zinken-Sommer, Amathusia 146	
Nomina Farar Davilia	
Nomius, Esper, Papilio 115	Paris, Linn., Papilio
Nourmahal, Westwood, Thaumantis 215 Noureddin, Westwood, Thaumantis 215	Parisatis, Westwood, Apatura 202
Noureddin, Westwood, Inaumantis 215	PARNASSIUS, Latr 84
Nox, Swainson, Papilio 89 Numa, Weber, Papilio	Parrhasius, Fabr., Hesperia 22
Numa, Weber, Papilio 103	Parrylae, Hope, Temopalpus ou
NYCTALEMON, Dalman 256	Parta, Moore, Adolias 100
Nycteris, Kollar, Macroglossa . 263	PARTHENOS, Hübner 147
Nyctiphanes, Boisd., Mecrosila. 268	Parvata, Moore, Apatura 202
Nymphalides, Swains., Amphrisius 87	Pasithoe, Lann., Papillo 79
NYMPHALIS, Latr 158, 178, 185, 204	Passalus, Drury, Sphinx 262
Nyseus, Guéria, Polyommatus . 27	Patala, Kollar, Adolias 196
Ochsenheimeri, Moore, Euplæa . 132	Patalena, Westwood, Amathusia. 210

Patna, Westwood, Mclanitis p. 238 Patnia, Moore, Mycalesis 232 Patroclus, Linn., Papilio 256	Polygonia, Hubner. 137 Polymnestor, Cramer, Papilio 101
Paulina, Cramer, Papilio	Polynice, Cramer, Papilio 144 Polynissa, Godart, Vanessa 144
— Kollar, Polyommatus 28	POLYOMMATUS, Latr 20, 21, 27, 30
Pavettæ, Zinken-Sommer, Euplæa 131 Payeni, Boisd., Papilio 110	Polyptychus, Hübner 261 Polytes, Linn., Papilio 103
Penthema. Doubleday 160	Polyzena, Donovan, Papilio 170
Penthesilea, Cramer, Papilio 154 Peranthus, Fahr., Papilio 109	Polyxo, Godart, Nymphalis 207
PERGESA, Walker 2/2	Pomona, Fabr., Papilio 57
Periander, Fabr., Papilio 147	Pompeus, Cramer, Papilio 87
Perimele, Cramer, Papilio 159 Perimuta, Boisd., Amblypodia 42	rompinus, raor., rapin
Perryhybris, Hübner 70	Pontia, Fabr 64, 69, 70 Porphyria, Cramer, Papilio 159
Persimilis, Westwood, Hestina . 161	Porsenna, Cramer, Papilio 80
PHÆDRA, Horsf	Praba, Moore, Hesperia 253 Pralaya, Moore, Goniloba 246
PHALANTA, Horsf 151	Pravara, Moore, Athyma 173
Phalanta, Drury, Papilio 151 Phaon, Erichson, Drusilla 214	PRECIS, Hubner
Pharis, Doubleday, Myrina 48	Primaria, Horsf., Aconthea 185
Pharis, Doubleday, Myrina 48 Phedima, Cramer, Papilio 223	Primaria, Horsf., Aconthea 185 Procris, Cramer, Papilio 179
Phemius, Doubleday, Itanus 187 Pheres, Boisd., Pamphila 251	Proserpina, Cramer, Papilio 159 Proteides, Hibner 244
Phidippus, Linn., Papilio 209	Protenor, Cramer, Papilio 98
PHILAMPELUS, Harris 270	PROTESILAUS, Swainson 89
Philene, Cramer, Papilio 124 Philippinus, Cramer, Papilio 56	Prothoe, Hubner
Philomela, Fabr., Papilio 61	Protogenia, Cramer, Papilio 237
— Hübner, Yphthima 235	Pseudocentaurus, Doubleday, Am-
Philoxenus, G. R. Gray, Papilio 96	Pseudolonginus, Doubleday, Am-
Phisadia, Godarf, Pieris 68	blypodia 45
Phleas, Linn., Papilio 27	Pseudoroxus, Doubleday, Lyenna 27
Philegethontius, Hubner 268 Phochis Hubner 55	PSITHYROS, Hubner 261 Pulaha, Moore, Enope 227
Phœbis, Hubner 55 Pногов, Hubner 265, 270	Pulasara, Moore, Adolias 190
Pholus, Boisd., Theela	Pulomaya, Moore, Hesperia 252 Purendra, Moore, Pyrgus 250
Pholus, Boisd., Theela	Purendra, Moore, Pyrgus 250 Puseda, Moore, Adolias 190
PHRYXUS, Hubner 213	Puspa, Horsf., Polyommatus 20
Picus, Cramer, Sphinx	Putra, Moore, Hesperia 253
Pieris, <i>Fabr.</i> 65, 70, 83, 84 Pindarus, <i>Fabr.</i> , Hesperia 37	Pyranthe, Linn, Papilio
Pita, Horsf., Loxura 52	Pyrene, Linn., Papilio 66
PITHECOPS, Horsf	Pyrgus, Hubner 249 Pyronia, Hubner 228
Plautilla, Hubner, Papilio 169 Plexippus, Linn., Papilio 124	Pyrrhus, Donovan, Papilio 205
Tunius, Fuor., Hespena 25	Querceti, Boisd., Amblypodia 42
Pluto, Fabr., Hesperia	Quercetorum, Boisd., Amblypodia 42 Radha, Moore, Neptis 166
Podalirius, Swainson	Rafflesii, Horsf., Deilephila 276
Polibetes, Cramer, Papilio 209	RAGADIA, Westwood 226
Polinice, Boisd., Hypanis 239 Pollux, Westwood, Papilio 93	Rahria, Westwood, Cyrestis 147 Rama, Kollar, Thecla 42
Polyctor, Boisa., rapino 103	Ramdeo, Moore, Thaumantis 215
	Ranga, Moore, Athyma 175 Ravana, Moore, Papilio 96
Polydorus, Swainson	- Moore, Cirrochroa 150
NOT 1	ь

navi, moore, connoba p.		Sinta, Moore, Ismene p.	2+
Ravindra, Horsf., Myrina	51	SITHON, Hübner	3
Recarants, Westwood, Cyrestis	146	Sitiene, Boisd., Macroglossa	26
Remba, Moore, Pieris	75	Siva, Westwood, Adolias	19
Rhadamanthus, Fabr., Papilio	126	SMERINTHUS, Latr	26
Daied Charithanton		Complete Dail Dings	
—— Boisd., Ornithoptera	88	Soracta, Boisd., Pieris Solandra, Fabr., Papilio	8
Rhadamia, Godart, Danais	126	Solandra, Fabr., Papilio	22
Rhebus, De Cerisy, Macroglossa.	263	Sorya, Kollar, Thecla	3
Rhetenor, Westwood, Papilio	98	SPHINX, Linn	26
Dhomic F.L. Daville		Calama Hillan Davilla	
Rhexia, Fabr., Papilio	67	Sphyrus, Hübner, Papilio	II
RHODOCERA, Boisd	59	Spilota, Horsf., Deilephila	27
Richmondia, G. R. Gray, Papilio	86	Stellatarum, Linn., Sphinx	26
Risa, Doubleday, Cyrestis	147	STEROPES, Hubner	25
		Ctialing II Land Davilla	
Rochana, Horsf., Amblypodia	44	Suchius, Huoner, Papino	10
Rohria, Fabr., Papilio	217	Stichius, Hubner, Papilio Striatus, Zinken-Sommer, Papilio	9
Romulus, Cramer, Papilio	102	Styx, Westwood, Acherontia	26
Rouxii, Boisd., Pieris	71	Substrigilis, Westwood, Ambulyx	26
Roxus, Godart, Polyommatus	26	Suffusa, Walker, Deilephila	27
Rudra, Moore, Argynnis	156	Sugriva, Horsf., Amblypodia	5
Runeka, Moore, Mycalesis	234	Sumbadra, Moore, Pamphila Superba, Herbst, Papilio	25
Safitza, Hewitson, Mycalesis	233	Superba Herbst Papilio	13
	157	Superna, Moore, Pyrgus	24
Sakontala, Kollar, Argynnis		Superna, moore, ryrgus	
Sakra, Moore, Yphthima	236	Sura, Doubleday, Zophoessa	22
Salamis, Boisd	142	— Moore, Achlyodes	25
Salia, Moore, Adolias	189	Suradeva, Moore, Melanitis	22
SALPINX, Hubner	126	Surya, Moore, Loxura	5
Calcula Mana Minaniada			
Salsala, Moore, Nisoniades	250	Sutapa, Moore, Hesperia	25
Samba, Moore, Mycalesis	233	Suyudana, Moore, Melanitis	22
Sambara, Moore, Goniloba	246	Swaha, Kollar, Satyrus	229
Sanaca, Moore, Pieris	79	Syama Horse Amplynodia	3
	231	Syama, Horsf., Amblypodia Syla, Kollar, Thecla	30
Sanatana, Moore, Mycalesis		inyla, Rollar, Thecla	
Sancara, Moore, Adolias	195	Sylvia, Cramer, Papilio	14
Santana, Moore, Anops	54	Symbiblis, Hubner, Alazonia	15
Saraswati, Kollar, Satyrus	229	SYMBRENTHIA, Hubner	15
Sari, Horsf., Terias	64	SYMETHA, Horsf	1
	113	Symethus, Cramer, Papilio	- 18
Sarpedon, Linn., Papilio		Contents, Crawer, Lapino	
Satanas, Boisd., Acherontia	267		
SATASPES, Moore	261	SYNCHLOE, Hubner	- 70
Satyrus, Latr	228	Syrichtus, Boisd	249
Scanda, Kollar, Erebia	226	Talazala, Boisd., Thecla	39
Mana Dabia			
— Moore, Debis Scapularis, Horsf., Deilephila	218	Talibes, Hubner	24
	269	Tamu, Kollar, Polyommatus	28
Schakra, Kollar, Satyrus	227	Tapana, Moore, Goniloba	246
Schreiberi, Godart, Nymphalis	205	Taxila, Doubleday	249
Soulla Line Papilio	58	TEINOPALPUS, Hope	- 86
Scylla, Linn., Papilio			
geienophora, Aouar, immenius	175	TELCHINIA, Hübner	13
Sema, Moore, Hesperia Sena, Kollar, Polyommatus	253	Telegonus, Hubner	244
Sena, Kollar, Polyommatus	28	Tenaris, Hubner	214
Moore, Goniloba	245	Tephnia, Godart, Argynnis	156
Sericeus, Walker, Philampelus	271	Terias, Sicainson	63
Sericeus, waiter, I mainpeius			
Sesia, Fabr	260	TERINOS, Boisd	149
Sesia, Fabr., Papilio	66	Terpsichore, Cramer, Papilio	136
Seta, Moore, Pieris	78	Terpsichrois, Hübner	126
Setho, Doubleday, Myrina	33	Terricola, Horsf., Phædra	53
Sidera, Boisd., Adolias	194	Teuta, Doubleday, Adolias	196
Sikandi, Moore, Adolias	193		149
Silhetensis, Boisd., Amblypodia.	40	THANAOS, Boisd	250
- Boisd., Deilephila	278	Tharis, Hubner, Oxylides	47
Similis, Linn., Papilio	122		214
Sinha C.H. Washaa		Transact Ulham 079	
Siuha, Kollar, Terinos	152	THAUMAS, Hübner 273,	4/9
Sinone Roisd Adolias	182 1	Thea. Godart. Argynnis	149

OF GENERA AND SPECIES.

THECLA, Boisd p. 28	}	Vasudeva, Moore, Mycalesis p.	930
Theophrastus, Fabr., Hesperia 25		Vasutana, Moore, Ismene	247
THERETRA, Hübner 272, 274		Vedanga, Moore, Pamphila	250
Thescus, Cramer, Papilio 94		Velleda, Cramer, Papilio	159
Thessalus, Boisd., Thoræssa 210) 1	Vellida, Fabr., Papilio	141
THESTIAS, Boisd 65		Venata, Moore, Terias	65
Thestylis, Doubleday, Pieris 78		Venilia, Godart, Pieris	67
Thetys, Drury, Papilio 52		Verhuellii, Van der Hoeven, Colias	59
Thisbe, Cramer, Papilio 80		Verma, Kollar, Satyrus	217
THOAS, Swainson		Vesta, Fabr., Papilio	136
Thoas, Swainson, Polydorus 94		Vidura, Horsf., Amblypodia	15
Thoë, Hubner, Hestia 125		Vigil, Guérin, Sphinx	270
Thoosa, Hubner, Terpsichrois 126		Vikasi, Horsf., Neptis	165
THORÆSSA, Boisd 209		Violæ, Fabr., Papilio	135
THRACIDES, Hübner 244		Virgauria, Scop., Papilio	27
Thrax, Linn., Papilio 254		Visala, Moore, Mycalesis	230
Thyelia, Linn., Sphinx 276		Vishnu, Moore, Pieris	83
—, Fabr., Papilio 204		Vivarna, Horsf., Amblypodia	39
THYMELE, Boisd 247		Volucris, Boisd., Macroglossa	263
THYMELICUS, Hubner 250		Vulcania, Godart, Vanessa Vulcanus, Fabr., Papilio	138
Thyodamas, Boisd., Cyrestis 146		Vulcanus, Fabr., Papilio	38
Thyria, Godart, Pieris 70		XANTHIDIA, Boisd	63
TIGRIDIA, Hubner 204		Xanthomelas, Denis et Schiff.	
Tilaha, Horsf., Terias 61		Xanthomelas, Denis et Schiff., Papilio	137
Timæus, Cramer, Papilio 27		Xanthopogon, Kollar, Hesperia	248
Timesius, Stoll, Sphinx 264		XENICA, Westwood	228
Timoleon, Stoll, Papilio 44		Xenocles, Doubleday, Papilio	90
Timora, Doubleday, Discophora. 211		Xenodice, Hubner, Lycana	243
TINOPE, Moore 234		Xiphia, Fabr., Papilio	70
TISIPHONE, Hubner 228		Xuthus, Linn., Papilio	111
Titania, Fabr., Papilio 57		Yama, Moore, Zophoessa	220
Titea, Godart, Pieris 68		YPHTHIMA, Hubner	235
Trigerta, Moore, Adolias 191		ZARETIS, Hubner	208
Triopas, Cramer, Papilio 49		Zayla, Doubleday, Limenitis	181
TROIDES, Hibner 86		Zelides, Hubner	89
Tullia, Cramer, Papilio 211		Zelima, Fabr	- 89
Turcicus, Gerhard, Papilio 27		Zelima, Donovan, Papilio	143
Tytia, G. R. Gray, Euplea 123		Zelmira, Cramer, Papilio	73
Undularis, Fubr., Papilio 237		ZEMEROS, Boisd	242
URANIA, Latr 256		ZERENE, Hubner	62
Urania, Zinken-Sommer, Morpho 214		Zeritis, Boisd	_37
VALERIA, Horsf 60		ZERYNTHIA, Hübner	211
Valeria, Cramer, Papilio 61		Zetides, Hubner	89
Vamana, Moore, Melanitis 223		ZEUXIDIA, Hubner	210
VANESSA, Fabr		Zeuzippe, Cramer, Papilio	77
Varaha, Moore, Melanitis 224		ZONILIA, Boisd	268
Varuna, Horsf., Theela 37		ZOPHOESSA, Doubleday	220
Wasse Mark Ashlandar 953		Zulema, Doubleday, Limenitis	197
Vasava, Moore, Achlyodes 252			

PLATE I.

Lycena Alexis, Stoll, larva, 1a. chrysalis 25

PAGE

FIG.

1.

2.	Dipsas Melampus, Cramer, larva, 2a. chrysalis	32
3.	- Xenophon, Fabricius, larva, 3a. chrysalis	31
4.	Amblypodia Narada, Horsfield, larva, 4a. chrysalis	39
5.	Apidanus, Cramer, larva, 5a. chrysalis	39
6.	Pseudolonginus, Doubleday, larva, Ga.	
	chrysalis	45
7.	Callidryas Alemeone, Cramer, larva, 7a. chrysalis	56
8.	Pyranthe, Linnaus, larva, Sa. chrysalis	56
9.	Scylla, Linnaus, larva, 9a. chrysalis	58
10.	Hebomoia Glaucippe, Linnæus, larva, 10a. chrysalis	GO
11.	Terias Hecabe, Linnœus, larva, 11a. chrysalis	63
12.	Pieris Coronis, Cramer, larva, 12a. chrysalis	76
13.		80
14.	Belisama, Cramer, larva, 14a. chrysalis	82
	D7.4MD 17	
	PLATE II.	
1.	Ornithoptera Pompeus, Cramer, larva, 1a. chrysalis	87
2.	————— Darsius, G. R. Gray, larva, 2a. chrysalis	87
3.	Papilio dissimilis, Linnaus, larva, 3a. chrysalis	91
4 .	Hector, Linnæus, larva, 4a. 4b. chrysalis	93
5 .	——— Diphilus, Esper, larva, 5a. chrysalis	94
6.	Alcinous, Klug, larva	95
7.	—— Memnon, Linnæus, larva, 7a. chrysalis	99
VOL.	т. с	

PLATE III.

FIG.		PAGE.
1.	Papilio Polymnestor, Cramer, larva, 1a. chrysalis	
2.	Helenus, Linnæus, larva, 2a. chrysalis	101
3.	Polytes, Linnæus, larva, 3a. chrysalis	103
4.	Pammon, Linnæus, larva, 4a. chrysalis	104
5 .	——— Demolion, Cramer, larva, 5a. chrysalis	105
6.*	Erithonius, Cramer, larva, 6a. chrysalis	105
7.	- Arjuna, Horsfield, larva, 7a. chrysalis	107
8.	Sarpedon, Linnæus, larva, 8a. chrysalis	113
9.	Agamemnon, Linnæus, larva, 9a. chrysalis	114
10.	Antiphates, Cramer, larva, 10a. chrysalis	
	PLATE IV.	
1.	Papilio Xuthus, Linnaus, larva	111
2.	Machaon, Linnæus, larva, 2a. chrysalis	111
3.	Danais Limniace, Cramer, larva, 3a. chrysalis	121
4.	Juventa, Cramer, larva, 4a. chrysalis	122
5 .	——— Philene, Cramer, larva, 5a. chrysalis	124
6.	Plexippus, Linnœus, larva, 6a. chrysalis	124
7.	——— Chrysippus, Linnæus, larva, 7a. chrysalis	126
8.	Euplœa Prothoë, Godart, larva, 8a. chrysalis	130
9.	——— Core, Cramer, larva, 9a. chrysalis	131
10.	——— Midamus, Linnæus, larva, 10a. chrysalis	133
11.	Ideopsis Daos, Boisduval, larva, 11a. chrysalis	134
12 .	Hestia Belia, Westwood, chrysalis	135

PLATE V.

PAGE.

FIG.

1.	Telchinia Violæ, Fabricius, larva, 1a. chrysalis 135
2.	Pareba Vesta, Fabricius, larva, 2a. chrysalis 136
3.	Pyrameis Cardui, Linnæus, larva, 3a. chrysalis 138
4.	Junonia Laomedia, Linnæus, larva, 4a. chrysalis 140
5 .	——— Orithyia, Linnæus, larva, 5a. chrysalis 141
6.	Asterie, Linnæus, larva, 6a. chrysalis 142
7.	Atella Phalanta, Drury, larva, 7a. chrysalis 151
8.	Cethosia Cyane, Fabricius, larva, 8a. chrysalis 155
9.	Diadema Auge, Cramer, larva, 9a. chrysalis
10.	Neptis Aceris, Esper, larva, 10a. chrysalis
11.	Athyma Leucothoë, Linnæus, larva, 11a. chrysalis 170
10	T' '' D ' G 1 10 1 110
12.	Limenitis Procris, Cramer, larva, 12a. chrysalis 179
12.	PLATE VI.
12.	
	PLATE VI.
1.	PLATE VI. Adolias Aconthea, Cramer, larva, 1a. chrysalis
1. 2.	PLATE VI. Adolias Aconthea, Cramer, larva, 1a. chrysalis
1. 2. 3.	PLATE VI. Adolias Aconthea, Cramer, larva, 1a. chrysalis
1. 2. 3. 4.	PLATE VI. Adolias Aconthea, Cramer, larva, 1a. chrysalis
1. 2. 3. 4. 5.	PLATE VI. Adolias Aconthea, Cramer, larva, 1a. chrysalis

PLATE Ia.

FIG.		PAGE.
1.	Miletus Boisduvali, Moore	19
2.	——— Horsfieldi, <i>Moore</i> , &	19
3.	Lycena Parrhasius, Fabricius	22
4.	Ilerda Brahma, Moore, &	29
5.	Dipsas Malika, Horsfield, &	37
6.	Amblypodia Camdeo, Doubleday, ?	41
7.	———— Quercetorum, Boisduval	42
8.	——— Dodonea, Boisduval	43
9.	Ganesa, <i>Moore</i>	44
10.	Rochana, Horsfield	44
11.	Jangala, Horsfield, &	46
12 .	Myrina Sugriva, Horsfield	51
13.	Loxura Surya, Moore	52
14.	Anops insularis, Horsfield	58
	PLATE IIa.	
1.	Eronia Avatar, Moore	61
2.	Terias Venata, Moore	65
3.	Pieris Neombo, Boisduval	72
4 .	— Vishnu, Moore	83
5 .	Autothisbe, Hübner	82
6.	Papilio Krishna. Moore	108

FIG.	PLATE IIIa.	PAGE
1.	Precis Hara, Moore	
2.	Cyrestis Rahria, Westwood	
3.	Cirrochroa Bajadeta, Moore	150
4.	Argynnis Aruna, Moore	150
5.	Calinaga Buddha, Moore	163
	PLATE IVa.	
1.	Neptis Miah, Moore	164
2.	—— Manasa, Moore	165
3.	——— Ananta, Moore	166
4.	Radha, Moore	166
5 .	Jumba, Moore	167
6.	Nata, Moore	168
7.	——— Nandina, Moore	168
	PLATE Va.	
1.	Athyma Asura, Moore	171
2.	——— Opalina, Kollar	171
3.	Jina, Moore	172
4.	Pravara, Moore	173
5 .	——— Cama, Moore, & ?	174
6.	Ranga, Moore	175
7.	— Mahesa, Moore	176
	PLATE VIa.	
1.	Abrota Ganga, Moore, & ?	178
2.	Limenitis Danava, Moore, & ?	180
3.	Pandita Sinope, Moore	182
4.	Castalia Chandra, Moore	200
5 .	Dilipa Morgiana, Moore, ♂ ?	201
6.	Apatura Parvata, Moore, &	202

































